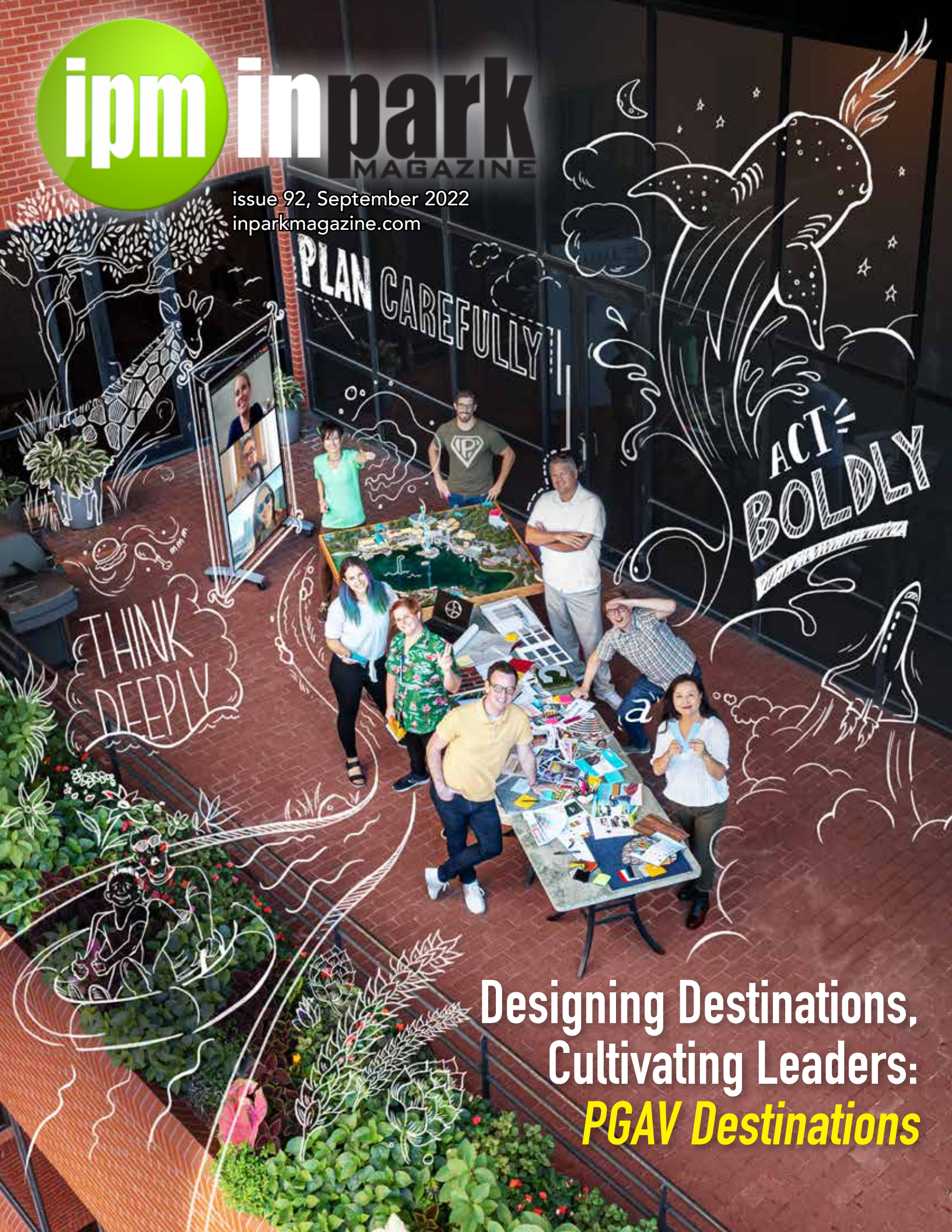




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Designing Destinations,
Cultivating Leaders:
PGAV Destinations

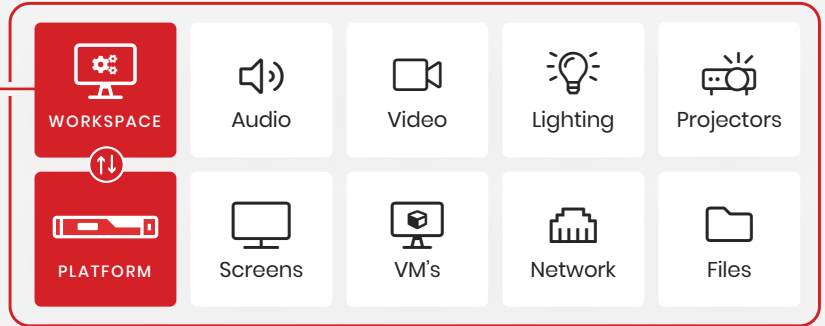
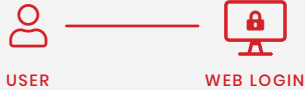


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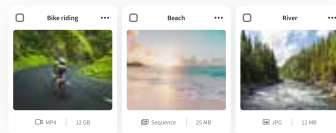


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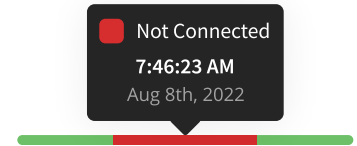
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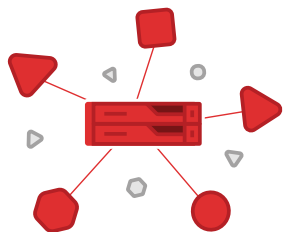
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PGAV Destinations showcases design leadership.

Cover art courtesy of PGAV Destinations Team

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Art-related job

**Judith Rubin,
Editor**



I've never concealed my age, so I'll come right out and say that September 2022 is the month of my 65th birthday, and that I have been part of this industry for 35 years. I don't know if that puts me over the hill, but certainly it qualifies for something. I'd have to say I feel mostly gratitude. Like so many, I sort of stumbled into themed entertainment.

I was a girl from Detroit, a jazz-crazed art school graduate living in NYC. I had a flair for writing, a love of theater and a talent for knitting. My various jobs included: activities director for a senior residence, publicizing a jazz club, designing sweaters and editing needlecraft instructions. I moved to the West Coast in 1987 and took a job with World's Fair magazine, which was my portal to the attractions industry. Many of the people and companies I first got to know in my eight years there are still colleagues and clients today, such as Cosm (p. 24).

There are many downsides to getting older, but the perspective of 35 years is pretty amazing. From my home office in Saint Louis, one of the things I really love to do nowadays is chronicle something that's become vital and mature in the industry, that I witnessed in its beginning stages years earlier. I love being able to bring that context to the story, to celebrate its successful evolution and acknowledge the breadth and history of accomplishment. And I love that I essentially patched together a unique career for myself that stayed close to my core interests and abilities – a pioneer, if you like, whose job it has been to shed light on other pioneers. I'm not done yet, by the way. This isn't goodbye, it's just "wow," and "thanks."

Judith helps drive content to serve the attractions industry, fostering professional connections, business development and the meaningful exchange of information. She has been contributing to InPark since 2005 and became editor in 2010. Follow on Twitter @judithrubin



Judy in NYC 1980s

EPCOT fandom

**Martin Palicki,
Publisher**



I am proud to confess that my favorite theme park is EPCOT. There are many parks around the world that I love, but if I have to choose, EPCOT wins. As a young boy I remember my father getting a promotional VHS tape from GM about the Walt Disney World Resort, then celebrating its 20th anniversary. The short video gave highlights from all around the parks, but most attention was given to EPCOT and the pavilion GM sponsored, World of Motion.

At the time, I don't think I realized how groundbreaking it all was. I just remember thinking how cool it looked – particularly the vehicles on World of Motion moving on their inclined, curved track out of the load area into the open and then back inside the show building. I couldn't wait to go.

I wasn't aware of EPCOT's connection to world's fairs and at the time, I'm not sure anyone understood how formative the park would be for the themed entertainment industry. So many professionals in the industry today, many now heading up their own companies, got their start working for Disney imagining and building EPCOT.

Of course, today the connections are much more clear. While visiting Expo 2020 Dubai I had dozens of "EPCOT moments," small touches in pavilions that I could connect directly to EPCOT, especially the park's World Showcase pavilions. As Joe Kleiman points out in this issue on p. 32, EPCOT was a pioneer in blending museum quality galleries into pavilion attractions. It's a model that remains popular to this day. World's fairs informed EPCOT, which now influences world's fairs. The cycle continues.

I'm happy that we are able to celebrate all that EPCOT has been and continues to become in this issue. As the park celebrates its 40th anniversary on October 1, reflect on how our industry would be vastly different had the park never been dreamed up, explored, engineered, financed, crafted and built.

Martin founded InPark Magazine in 2004, combining years of experience working in themed entertainment with a passion for writing and design.



Joe Kleiman, Senior Correspondent

Raised in San Diego on theme parks, zoos and IMAX films, Joe Kleiman would expand his childhood loves into two decades as a projectionist and theater director within the giant screen industry. In addition to his work in commercial and museum operations, Joe has volunteered his time to animal husbandry at leading facilities in California and Texas and has played a leading management role for a number of performing arts companies. Joe has been News Editor at InPark Magazine since 2011, becoming the publication's Senior Correspondent in 2021. His blog ThemedReality.com takes an unconventional look at the attractions industry. Follow on Twitter @themedreality.



Marty in Norway, EPCOT 1997

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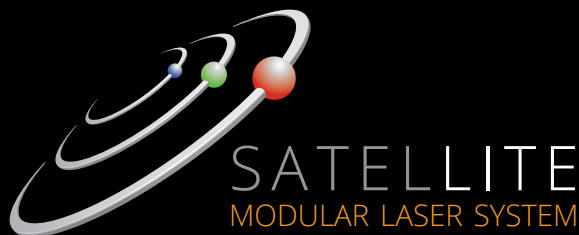
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The wildest ride

Looking back on my 20 years in the industry (so far)

by Scott Harkless

It hasn't completely sunk in yet, but I just celebrated my 20th anniversary with Alcorn McBride. To celebrate the occasion, my colleagues surprised me with an amazing brunch that included authentic stone-milled grits. As I was sitting there enjoying my bowl of "Georgia Ice Cream," I was hit with a few questions I wasn't fully prepared to answer. What were the best moments? Craziest trips? Favorite projects? Perhaps that was the point; to ignite some 20-year-old neurons and see what shakes loose. Though it's certainly a long time to stay with one company, the things that came to mind made it obvious why I'm still enjoying the ride after all this time.

Most memorable trips

In 2001, we launched a PC-based High-Definition video player we called the DVMHD. In hindsight, it was a cutting-edge product that hit the market years before HD really took hold in the industry. Unfortunately, the PC-based aspect of this product made it a bit of a challenge to work with, so I traveled all over the world wearing my tech support hat. One of the most memorable of these trips was the 2005 World Expo in Aichi, Japan. It was my first experience visiting a World Expo, and the hospitality of everyone staffing the event was unforgettable. I was working on the Holland pavilion, and the fridge was always well-stocked with Gouda cheese and Heineken beer. There were over 120 countries exhibiting at the Expo, and every night after the show closed, a different country would host a party for the entire expo staff. No borders, no political tensions, no conflicts. Just a diverse group of people being brought together by this incredibly unique event and getting the chance to really learn about one another.



Mayor Glenda Hood visits the office during Scott's first week.

All photos courtesy Alcorn McBride

Then there was the time I went to St. Paul, Minnesota, to program a themed A/V experience in a CT scan room at Gillette Children's hospital; something designed to soothe patients during stressful procedures. After one day of working hard in a fabrication shop while listening to a colleague sing Journey at the top of his lungs, I was winding down at the hotel bar. Not a soul was around except for the bartender. Suddenly, a group of at least 50 well-dressed boisterous people poured into the place and surrounded me. They all worked for a local accounting firm, and they were in the mood to celebrate because it was the end of Tax Day. The best part is that they were absolutely convinced that I was one of their coworkers named Norm, so what was I supposed to do? Of course, I played along and had an unforgettable time hanging out with them. Whenever someone in the group would get suspicious enough to say something like "So... Who are you again?" the others would interrupt and say, "Hey! Leave Norm alone!"



World Expo 2005, Aichi, Japan



World Expo 2005, Holland Pavilion



Scott and colleagues celebrate his 20th anniversary with Alcorn McBride.

The best programming job was the Pro Football Hall of Fame theater when they upgraded to our newly released V16Pro show controller and Digital Binloop HD. From a control standpoint, the attraction itself is a real challenge to wrap your brain around since it involved a two-screen, rotating theater with continuous guest flow – and older equipment in need of some reverse engineering. Also, the content for the show was incredibly well done by the NFL Films crew. There's a point in the show where the music is pumping, and the announcer's booming voice says something like "TWO TEAMS...VYING FOR A PRIZE... ONLY ONE...CAN WIN!!!" I'm not much of a sports fan, but I don't think I've ever been so pumped to write a show control script! Most of all though, it was just a cool "full-circle" moment since I grew up in Canton, Ohio. It was incredibly fulfilling to work in a place that I've been visiting since grade school, and a place that my family and friends in Ohio have all experienced.

The scariest trip was my first one. It was a traveling Hiro Yamagata art exhibit that was coincidentally being installed at my former workplace: COSI in Columbus, Ohio. Although I gained a lot of experience with Alcorn McBride products while working for COSI, I had never programmed a V4+ show controller or LightCue in a real attraction. I was terrified that I would screw up and look like a complete idiot. It didn't help that lots of things were wrong with the installation when I got there, either. I remember troubleshooting and rewiring serial connectors, repairing light fixtures, and jumping through more than a few programming hoops to satisfy the project director. In the end, I felt a bit silly for being so nervous. Although it was

partially a trial-by-fire, it was also a lesson in how professional and collaborative the people in this industry can be. The relationships and experience gained from that project made it that much easier to walk onto the next jobsite.

Favorite product

During my time as an engineer on our development team, the product that I was the proudest to work on was the Alcorn McBride Video Binloop (DVM7400). At the time, the company was struggling a bit in the video category. Our staff were pulling their hair out manufacturing and supporting three PC-based video products: the DVM4, Information Station, and DVMHD. I was responsible for the DVM4, and it had reached a point where we were no longer able to get our hands on the PCI



The Alcorn McBride Video Binloop



Steve Alcorn's Food & Wine Festival celebrating his 60th birthday

decoder cards needed to build them. To keep the product alive, we were evaluating an alternative PCI decoder card. The only problem was that we were growing weary of building PC-based products, and none of us really wanted to go that route. Thankfully, there was a cool prototype of an embedded video player design sitting in a box under my desk that was screaming to become a real product, so we took a chance and went for it.

After a year of obsessing over code, documentation, cut sheets, and video encoding tools, we were shipping the Video Binloop and the DVM7400 products. Not only did this allow us to retire most of our PC-based server products gracefully, but the Video Binloop became quite a hit in the industry. At the time, there was simply no easier way to synchronize multiple channels of video playback. Within a couple of years, much of that same work was carried forward into the Binloop HD (DVM8400) and allowed us to end our PC-based video server nightmare once and for all. It took time for it all to unfold, but this felt like a defining moment in our company history, that shaped our design philosophy into something that worked better for both Alcorn McBride and the industry.

Lessons learned

The most impactful thing I've learned during the past 20 years is the power of relationships. When I first joined the company as a Design Engineer, I subscribed to the philosophy that if we just built great products, people would naturally buy them. After more than a few years of working alongside some great mentors, a switch just flipped in my head, and it hit me. People work with us because they like us, trust us, and know that we want them to succeed. Designing great products is an essential

part of the equation, but the reason we do that in the first place is the reason we're still in business. We build cool stuff to help our friends and partners succeed, and they feed us work because they want us to keep doing that!

What's great is that this same realization applies within our company too. We often hear about people jumping from one job to another because they weren't satisfied with their role, got a better offer somewhere else, despised their bosses, coworkers, etc. What makes Alcorn McBride truly special is that everyone who works here wants to build cool stuff, make this a better place, and push the industry forward. The camaraderie and sense of accomplishment that come with that shared mentality offer a sense of fulfillment that paychecks, fancy titles, and corporate ladders can never replace.

Best moment

Without a doubt, my favorite moment from the past 20 years was Steve Alcorn's 60th birthday celebration. As many people know, Steve was highly involved with the construction of EPCOT, so we thought it would be fitting to have our very own "Food & Wine Festival" where we celebrated the things that Steve loves (and hates) with 18 stations of themed food and wines. For that one afternoon, productivity at Alcorn McBride came to a screeching halt as we flipped the phones to "Night Mode" and polished off at least 30+ bottles of wine and homemade treats in a matter of hours. I will never forget Mike Polder's ballroom dancing display, where he was hugging everyone underneath a disco ball in his fancy tuxedo and telling us all how much he loves us.

"Your work is going to fill a large part of your life, and the only way to be truly satisfied is to do what you believe is great work. And the only way to do great work is to love what you do."

—Steve Jobs

After all this time, I still love coming to this place because I love my coworkers (right back at you, Mike!), I love the customers we work with, I love what we do here, and I love the positive impact that our industry has on so many lives throughout the world. Period. Everything else is a bonus!

The last 20 years have been the wildest ride, and I'm looking forward to riding 20 more with all of you! •••



As Chief Innovation Officer at Alcorn McBride, Scott Harkless works closely with clients to determine their biggest areas of need and leads a talented team of problem solvers to create the products used in many of the world's

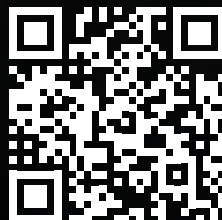
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Designing destinations, cultivating leaders

St. Louis Aquarium at Union Station, St. Louis, MO
Photos courtesy of PGAV Destinations

PGAV Destinations' new generation of leaders harness their passion and unique perspectives to respond to the changing landscape of the industry

by Gene Jeffers

Designers and master planners of extraordinary attractions, for 55 years PGAV Destinations has successfully helped operators and developers of theme parks, zoos, museums, aquariums, science centers and leisure destinations realize their visions and deliver great guest experiences. Among a long and distinguished list of global clientele, PGAV Destinations' St. Louis design studio has helped The Smithsonian, Chimelong Group, National Geographic, SeaWorld Parks & Entertainment, PortAventura, Bass Pro Shops, Kennedy Space Center, the Georgia Aquarium and many others anticipate and respond to visitor demands.

To survive, grow and react to changing consumer demand over 55 years, a company must evolve and cultivate fresh perspectives and directions. To further expand its ability to serve the industry, PGAV Destinations recently opened a studio in Orlando. The expansion will enable the firm to realize new growth opportunities and enhance its ability to serve major theme park clients based in the area, with a group of innovative and dedicated leaders at the helm.

Leadership is a key component of remaining fresh and competitive. Ingrained in PGAV Destinations' company culture is the practice of engaging new talent from diverse sources, and cultivating that talent to grow within the company, fostering a unique blend of passionate and engaged artists, architects, storytellers, business strategists, designers, interpreters, and planners.

We spoke to eight of PGAV Destinations' emerging generation of leaders; each has a passion for the work, an ability to empathize with the clients and their guests, and a deft touch managing and motivating the teams they lead. They are on the front lines deploying new ideas, employing cutting-edge technologies, and navigating multicultural environments around the globe.

Finding the heart of the story

"I love getting a team together to generate ideas and bring our client's vision to life," says Amanda Yates, Director of Brand Experience. "It's incredible when a project opens, and guests and

clients can finally experience it in person.” Amanda has been with the company for 11 years and grasps the impact such projects can have.

“Experiences can change lives,” she says, citing Space Shuttle Atlantis at Kennedy Space Center Visitor Complex as an example. “There’s this spaceship, this astounding human achievement. Right there. Right in front of you. The entire attraction encourages guests to imagine themselves in it, to imagine what it would be like to travel to space. Experiences like that inspire.”

When it comes to branded experiences, distinguishing the brand’s story and creating ways to engage guests in its power is crucial to every project. “I love working with brand teams, exploring their messages, defining their objectives,” says Amanda. “We spend a lot of time mining their vision. We dig until we find what truly matters. We build experiences around those meaningful connections, so guests can see themselves in the brand and feel a deep connection to it.”

“I’m an architect by training, but I’m also a lifelong theme park fan,” says Josh Rodriguez, a Project Architect with PGAV Destinations for 19 years. Growing up, his family would travel every year from Puerto Rico to Walt Disney World. “With my work, I give guests a canvas on which to paint their own world, write their own story.”

Josh knows the value that research and data can provide in writing that story, and makes the most of formal data including

that of PGAV Destinations’ own research, as well as online fan sites and message boards. “There is a wealth of information available about guests, and we make use of it all,” he explains.

“Learning what visitors like and don’t like is incredibly valuable. Spotting a trend or identifying a problem can help with the design of an attraction or offer ways to improve existing facilities. Traditional research plus comments straight from visitors is a powerful combination.”

Empowering the players

“Many things excite me working at PGAV Destinations,” says Jason Mills, Director of Visual Development. “Every day offers a unique challenge, and you never know what you are going to walk into, or what solutions you will have to develop.” With PGAV Destinations for 11 years, he has watched as solutions have grown increasingly reliant on new technologies. “I look at an attraction and think about how we can interact with it, have it surround us, and have it include us as part of the story.”

He appreciates working with colleagues who have decades of real-world attraction experience. “We need everyone’s unique expertise to guide us toward creative, intelligent designs. We lean on the past and leverage the present to create wonderful things in the future,” he elaborates. “That blend of talent ensures PGAV Destinations projects will draw people in, engage them in the story, and leave a meaningful impression.” As part of a generation that grew up with digital technology, he possesses a level of comfort that allows him to dream big when creating a compelling visitor experience.



Hui Chen
Director of
Asian Projects



Ellen Mosley
Project Architect



Josh Rodriguez
Project Architect



Amanda Yates
Director of Brand
Experience



Ashley Edelbrock
Project Lead, Planning
and Creative



Jason Mills
Director of Visual
Development



Rosey Masek-Block
Project Architect



Justin Stichter
Attraction Designer/
Project Manager



Smithsonian National Air & Space Museum, Washington, D.C.

Attraction Designer/Project Manager Justin Stichter embraces the idea of giving guests an active role, of creating a “story-living” environment. He and his teams look for ways to enable people to explore, create, discover and affect outcomes within the experience. And he knows the process starts early. “Equally important, we can now apply that story-living approach with our clients during the design process,” he says.

When designing the St. Louis Aquarium at Union Station, his team brought the clients to the H.I.V.E. (PGAV Destinations’ “Highly Interactive Virtual Environment”) – a large, cutting-edge immersive space. Clients and designers were enveloped in a life-size visual and audio model of the project’s exhibit halls as realistic details and swimming AI fish were added. Justin and his team immediately reacted to the client’s feedback, creating a more authentic and responsive end result for the visitor.

“In my 18 years with PGAV Destinations, I’ve had opportunity after opportunity to create amazing places,” says Stichter, who recognizes his actions touch others. “At the end of the day I am an architect. I’m interested in how my designs engage people. Using tools like the H.I.V.E. enables us to get a realistic sense of what a guest feels like while the project is still on the drawing board.”

Zoos and aquariums add additional demands on designers’ empathic skills. “This is a crazy time right now for the industry,” notes Project Architect Rosey Masek-Block. “Crowds are flocking to animal exhibits, and at the same time, public concern for

animal welfare has never been higher. We need to put ourselves in the animals’ positions if we are to get a design right.” Facilities have to find solutions to meet attendance and welfare issues. “If you can’t deliver a quality experience for the animals, then you’ll fail,” she emphasizes. “The magic happens when the animals are happy – and their keepers are happy. Only then can you make the guests happy.”

Motivating the team

With PGAV Destinations for 14 years, Rosey extends that need for empathic understanding to her teammates. “Just as important as connecting with the animals and guests at an attraction, I strive to connect with my team and find out how they are. I want to know how they feel about their projects and workload. I’m always proud when teammates recognize that others have external stressors and step in to help. They know that their teammates will do the same for them. I build time to check in with my team and encourage mental refreshment breaks.”

Every project, whether zoo or theme park or museum, is highly specific to the client’s story, and PGAV Destinations assembles each design team with a fresh combination of talent. “I like to work with a new team, a new combination. It creates a lot of energy,” says Ashley Edelbrock, Project Lead, Planning and Creative. “That energy creates exciting places that have the power to engage people.” Twelve years with the firm, she values blending older and younger voices. “Our industry demands groundbreaking ideas every day. We are repeatedly asked to design the ‘experience of the future.’”

That variety of viewpoints, all focused on solutions that resonate with visitors, is critical at PGAV Destinations. “Veteran leadership can teach us why attractions are designed the way they are,” says Ashley. “It is up to us to challenge those norms, but we need to have clear answers: does it improve the guest experience, will it be easier to operate, does it tell the story more effectively?” Ashley recently relocated to Orlando and is helping bring PGAV Destinations’ culture of inclusivity to that studio. “In this culture, everyone has a role to play, has ideas to share. We need to believe that if our contributions do not grow and improve the project over time, then we’ve failed. That’s where we need to focus our energy.”

Maintaining that energy and innovation over years-long projects can be a challenge, especially when working far from home, but a necessary challenge as the attractions industry expands into new territory. For the past two years, Project Architect Ellen Mosley has led a design team in Abu Dhabi during the construction of a large-scale themed entertainment project on-site. With over 6,000 people from around the world working on site every day towards a common goal, the project is truly an international collaboration. “PGAV’s work is continually growing into new regions around the world, and with each additional venture, a new adventure awaits.”

“One of the greatest challenges while working within an international environment is adapting to the unique conditions and practices while still delivering the project vision for the client,” she says. “You have to be creative and flexible to solve problems you never even imagined. You are in charge of steering the ship in unfamiliar waters, and you must keep the team energetic, confident, and focused.”

For Ellen, transforming the client’s dream from concept to construction is the ultimate achievement. After 13 years with the company, she says, “You can design all day on paper, but when it starts to become real, that’s the part I love. Something magical happens when the details start coming together and the scenes you’ve envisioned hundreds of times become a reality. Years of hard work and creativity have led to this one wonderful moment – when the doors finally open and guests begin to experience the world you’ve helped create.”

Building up, building better

Hui Chen, Director of Asian Projects, has focused on China for nearly a decade. For her, recognizing each team member’s skills, passions and capabilities is a leader’s responsibility. “Only then can you motivate and include them in the work,” she notes. Many of her assignments are based in rural areas in need of economic



Chimelong Ocean Kingdom, Zhuhai, China



Space Shuttle Atlantis, Kennedy Space Center Visitor Complex, Merritt Island, FL

revitalization. “These projects can bring thousands of people back from the big cities to their hometowns. To motivate the team, I focus on the beneficial impact of our work and what we are building.”

Recognizing client needs is absolutely vital. Demands for improved quality standards have grown in her market. She is helping one client pursue accreditation from the Association of Zoos and Aquariums (AZA), which will require stricter animal care standards than local regulations. Another client has asked for help implementing LEED standards. “It’s exciting to get to the heart of a client’s desire and help them raise the bar,” she says. “This helps every other attraction in the region.”

Hui also draws inspiration from PGAV Destinations’ multicultural team. “Diversity is an essential factor for success. We must design ways to engage visitors from different backgrounds worldwide. To achieve that, we must encourage staff from different cultural backgrounds to bring new ideas and perspectives to the table.” Key to her work is helping everyone raise their awareness of cultural issues. “I am always looking for cultural blind spots,” Hui emphasizes. “We cannot risk offending guests at our destinations by ignoring our own blind spots. That is one more way we care for clients and their stories.”

Doing what is best

This multidimensional emphasis on doing what is best by caring for guests, clients and staff while creating immersive destinations is intentional and permeates the firm. It is at the heart of a core principle: protecting every client’s story while engaging every guest.

“PGAV Destinations is organized around empowering the talents of more than 140 people, all aimed at designing, creating and delivering your message in an unforgettable way,” says Mike Konzen, Chairman of PGAV Destinations. “We’re incredibly proud of our entire PGAV Destinations team and their ability to share your story and build your dreams.”

Visit www.pgavdestinations.com. • • •



Gene Jeffers, former (2001-2013) TEA Executive Director, is currently serving as a Board member for the Greater San Gabriel Pomona Valley’s American Red Cross and serves on the Board of the Historical Novel Society. He continues to write in a variety of genres. Based in Pasadena, Gene and his wife Carol (also a writer) are looking forward to traveling again and spending more post-COVID time with their two daughters, son-in-law and three grandchildren.



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Polin Waterparks brings unique elements to integrated resort

New and exciting enhancements at VinWonders Nha Trang

by Joe Kleiman

Around the world we're seeing a variety of innovative and influential resort developments. Many include waterparks, and when they do, Polin Waterparks is often a preferred partner. Over the past 33 years, Polin Waterparks has established itself as a top manufacturer and solutions-oriented, creative collaborator, working closely with clients to meet challenges of space and theme and help deliver a unique guest experience.

A recent example is Vinpearl Nha Trang resort complex and its adjoining theme park, VinWonders Nha Trang. It is located in the Nha Trang region of Vietnam, which boasts a number of five-star luxury resorts. As the country came out of its national COVID-19 lockdown in spring 2022, Vinpearl and VinWonders prepared to welcome back tourists.

Among the new offerings to help VinWonders remain competitive is an expanded waterpark, rebranded as Tropical Paradise. It features new theming evocative of a tropical forest, complete with Instagrammable spots and lush landscaping next to a white sand beach, along with a host of new attractions. VinWonders returned to its original supplier, Polin Waterparks, to provide the new attractions, designed and integrated to fit the property and express the tropical forest theme of this island waterpark.

To satisfy the vision, Polin applied creative engineering and customer-oriented design to deliver unique, compact versions of signature attractions and intertwine others, making the most of available space with attention to aesthetics, guest experience and safety. The new Tropical Paradise now boasts many new outdoor activities for returning domestic tourists, while also readying the park for a future wave of international tourists.

A recovering tourism sector

The Tropical Paradise waterpark expansion at VinWonders Nha Trang is an encouraging example of the kind of reinvestment that helps drive repeat visitation and keeps a property thriving. It comes at a time when Vietnam is reopening after a nationwide



Tropical Paradise waterpark at Vinpearl Nha Trang resort in Vietnam
All photos courtesy of Polin Waterparks

COVID-19 closure that had severe negative impacts on the tourism and hospitality sector. More than a third of the country's GDP is based in the service sector, which includes tourism, eclipsing the profits from manufacturing, construction, agriculture, fisheries, and mining. The growth of the tourism sector has steadily increased over the past decade, from 6.3% of the GDP in 2015 to 9.2% in 2019. However, the effects of COVID-19 are apparent over the subsequent two years, with the sector's contribution to GDP reducing to 3.6% in 2019 and less than 2% in 2020.

According to a report by Margaux Constantin, Matthieu Francois, and Thao Le for global management consulting firm McKinsey & Company, international travel to Vietnam decreased from 34 million to 7 million air passengers between October 2019 and October 2020. Vietnam's Ministry of Culture, Sports and Tourism shows that most international visitors come from China, maxing in 2019 with 5.8 million visitors, but reducing to only 872,000 the following year.



The waterpark sits on Nha Trang Bay, known for its white sand beaches and crystal blue waters.

The McKinsey report points out that “in 2019, Vietnamese tourists spent \$15.5 billion, of which \$5.9 billion flowed overseas. The majority of tourists are unable to leave the country, so they are looking domestically to scratch their travel itch.” These domestic tourists are also looking for outdoor activities after being cooped up at home during the nationwide shutdown.

The seven lands of VinWonders

Nha Trang, approximately an eight-hour bus ride from Ho Chi Minh City, was once a thriving regional government center. These days, it's one of Vietnam's leading tourism destinations. The city is home to numerous historic religious structures, including centuries-old Buddhist temples and a Catholic Cathedral harking back to the days of French colonial rule, while Nha Trang Bay is well known for its white sand beaches and crystal blue waters abundant in sea life that entice both seafood foodies and scuba divers alike.

Located on an island accessible by boat or aerial gondola, VinWonders Nha Trang is one of the biggest draws of the region. It features seven unique themed lands, all included with a single ticket.

- Tropical Paradise (described above), a 59,000-square-meter waterpark first opened in 2006 with a majority of its attractions provided by Polin Waterparks, with new Polin attractions opened for the 2022 season.
- Sea World features one of Vietnam's largest aquariums, housing over 30,000 animals. In 2022, the park added an upcharge experience of a journey through local coral reefs in the world's first submersible where the passenger cabin is a single transparent acrylic tube.
- King's Garden is the only zoo in the Nha Trang region and features birds and mammals from around the world, including Bengal tigers and hippopotamus.
- World Garden is a botanical garden divided into three distinct sections – cacti, roses, and a Japanese garden. The World Garden is also home to the Sky Wheel, one of the tallest and largest observation wheels in Vietnam, at a height of 120 meters. The wheel is located at one of the highest points in the park, offering views over both Nha Trang Bay and the shoreline of the resort city of Nha Trang.
- Adventure Land is a combination traditional theme park, with elements of an adventure park. Attractions range from roller coasters to bungee jumping.
- Fairy Land is a combination of traditional family and children's rides, such as a carousel and more hardcore adventure park elements, including an alpine coaster and Vietnam's longest and steepest zipline.

- Tata Show is the park's \$10 million, nighttime spectacle, featuring 170 performers, projection mapping, lasers, and environmental effects.

Double the waterpark attractions

To meet the park's post-COVID expansion needs, Polin Waterparks has provided new attractions for Water World. Among the new additions is a special version of the award-winning King Cobra ride, specifically designed for VinWonders Nha Trang. Introduced at IAAPA Expo Asia in 2010, the first King Cobra waterslide opened at the Cobra Kingdom waterpark at Maxx Royal in Antalya, Turkey. Since then, it has been a bestseller for the company, with installs in Europe, North America, and Asia. The traditional model begins with a journey through twisting tubes, ending with a trip up into the cobra's mouth. At VinWonders, the narrow plot of land allotted for the King Cobra, surrounded closely on three sides by other waterslide structures and on the fourth by a lazy river, was too short and thin to allow for the curving portion of the slide. Polin's solution was to create an open-air, compact version of King Cobra, in which teams of riders race each other on rafts over a hump and through a straightaway. Like the classic version, the ride concludes with the traditional trip up into the cobra's mouth.

The park has also added a Splash Course, a ropes course with water elements that fits perfectly with VinWonders Nha Trang's adventure park elements. At the top of the Splash Course is a

shortcut to the Aquatube waterslide, which intertwines with the Splash Course structure. The Aquatube is an example of Polin Waterparks' UTEXTURE technology. Based on Vacuum Assisted Resin Transfer Molding (VARTM), UTEXTURE allows for fully themed slides with a variety of patterns, ranging from solid colors to translucent, with patterns appearing on both the exterior and interior.

Another new feature is a children's waterplay structure, with tipping buckets, slides, net climbs, and water cannons.

Kubilay Alpdogan, General Manager of Polin says, "VinWonders is the biggest theme park chain in Vietnam. It was truly an honor to be able to work with the group again. We take great pride in the fact that the park chose us as a partner for their recent expansions. We are excited to have added such unique new attractions to the park, truly an investment in its future."

Global reach

Founded in 1976 by architect Enver Pakis, the Polin Group is a leading innovator in developing and manufacturing composite materials. Headquartered in Dilovasi, Turkey, it began by serving the construction industry and in 1989, the company began manufacturing composites for the European waterpark sector. By 2006, Polin had begun applying specialty techniques to its pioneering research and development work in waterslides, to the benefit of its clients and the industry. An example is the use of light-resin transfer molding (LRTM), more typically used in



The waterpark is just one part of the expansive Nha Trang resort.



The waterpark includes an impressive selection of Polin waterslides.

industries such as automotive, aviation and spacecraft. The newly adapted procedure allowed for symmetrically perfect parts on slides that were lighter, yet stronger than their traditional composite counterparts. By the end of the year, the company had converted its entire waterslide manufacturing operation to LRTM.

In addition to providing composites for aerospace, construction, automotive, hotels, transportation, wind energy, and waterslides, Polin Group has positioned itself as a “one-stop shop” for the attractions industry, branching into park development, management, and operations, and into the design and operation of wildlife parks and aquariums. Within the waterpark industry, Polin offers a variety of solutions to its global list of customers, including design, theming, engineering, manufacturing, and installation. Polin Waterparks also offers a technical operations service, supplying an on-site team to oversee slide and attraction maintenance and sanitation. With 1,500 staff members from 75 countries, Polin operates or oversees 21 manufacturing facilities around the world and has offices or partners and dealers in 65 countries. In 2018, Polin was designated as a Research & Development Center by the Turkish government.

Ready for a challenge

Polin works closely with its clientele to determine creative and technical solutions based on need, whether spatial or customer-based. One example of Polin Waterparks’ solutions-based approach is The Wave waterpark in Coventry, England, which was built on a confined piece of land measuring only 50m (164ft)

in diameter and positioned in a unique, three-story tower, the top two of which comprise the waterpark, featuring six intertwining Polin slides. “The floor plan ultimately put the waterslides on the third floor, an especially unusual proposal,” said Bilge Pakis, Board Member of Polin Group. “That meant Polin needed to specially adapt its rides to fit within the specific limitations of the building’s mostly round layout and its constricting ceiling height. It wasn’t an easy design. But it was incredibly fun to work on. It was challenging yet exciting to see the puzzle pieces of the slides match the required size needs and, finally, fit perfectly within the restrictions of the facility.”

At Turkey’s Land of Legends, Polin Waterparks played an important role in the design and implementation of this fully integrated resort, which opened in 2016. The waterpark was a primary feature from the start. Land of Legends has in common with the Vinpearl Nha Trang resort that both include a waterpark, zoo, dolphinarium, land-based amusement park, and resort hotel.

“Polin has been a leader in bringing themed attractions into the waterpark space,” says Baris Pakis, Polin Group President. “There will continue to be an integration of various ideas and concepts across amusement facilities. That’s why we have built a flexible organization that can respond to the needs of the industry, and of our clients. We constantly strive to put our clients in the center of everything we do, because without them we wouldn’t be where we are today.” • • •



Concept image courtesy Minnesota USA Expo

World expos, planned and proposed through 2030

Roadmapping the next decade of World Expos

by Jim Ogul

Expo 2025 Osaka Kansai

At the time of this writing, with fewer than 1,000 days to go till opening, 130 countries and regions had confirmed participation in Expo 2025, putting it close to its goal of 150. By way of comparison, the past two world's fairs on this scale were Dubai 2020 (192 participants), and Milan 2015 (145 participants).

Expo 2025 will be a six-month world expo, taking place April 13-October 13, 2025, in Osaka, in the Kansai region of Japan, with the theme "Designing Future Society for Our Lives." Per regulations established by the Bureau International des Exhibitions (BIE) and its member states, the large-scale world expos take place every five years and run six months; Specialized expos, which run three months and are smaller in area, occur between the larger events.

Japan has a distinguished history as an expo host. Expo 1970 Osaka was a successful and celebrated world's fair for many reasons, including its 40-year attendance record of 64,218,770

visits, which was not exceeded until Expo 2010 Shanghai recorded 73,085,000 visits. Other notable expos followed, including Okinawa 1975, Tsukuba 1995, Aichi 2005, and Osaka again in 1990 – a horticultural exposition which although not a world's fair in the strictest sense had most of the attributes of one. (Four types of expos are organized under the auspices of the BIE: World Expos, Specialized Expos, Horticultural Expos and the Triennale di Milano.)

Expo 2025 Osaka Kansai's blue-and-red mascot now has a name. A screening committee set up by the host organization chose Myaku-Myaku out of 33,197 suggestions submitted from across Japan. Committee members decided on Myaku-Myaku because it can be used globally and evokes a sense of affinity, according to the association.

The organizers announced that a ring-shaped wooden roof with a circumference of two kilometers will be erected using traditional techniques at the 2025 Osaka Kansai Expo. The ring

will circle the expo site allowing visitors a sheltered, pedestrian perimeter to exit along the way to pavilions they want to visit. Visitors will be able to walk along a corridor on the roof which will be 30 meters across. An estimated 20,000 cubic meters of timber will be utilized.

BIE reviews the 2027/28 candidates

Five countries are competing to hold the next Specialized Expo which will occur in the 2027/28 time frame: Argentina (San Carlos de Bariloche), Serbia (Belgrade), Spain (Malaga), Thailand (Phuket) and the United States (Minnesota). At present the BIE is conducting missions to each location to evaluate their respective plans and assess the region's feasibility as a host, and in July embarked on the first of five such survey missions, starting with Phuket, Thailand.

Phuket's proposed theme is "Future of Life: Living in Harmony, Sharing Prosperity," and its goals include boosting tourism and demonstrating recovery from the COVID-19 pandemic. The inquiry process includes attending detailed presentations of the candidature project, visiting the proposed Expo site, and interacting with national and local officials, as well as representatives of the business community and members of civil society. As reported by the BIE, members of the Enquiry Mission were led by the President of the BIE Executive Committee, Alain Berger. The delegation included representatives of BIE Member States as well as BIE Secretary General Dimitri S. Kerkentzes. In Bangkok on July 25 and 26, members of the mission met with Prime Minister Prayut Chan-o-cha, as well as Deputy Prime Minister and Minister of Health Anutin Charnvirakul, and the Vice Minister for Foreign Affairs Vijavat Isarabhakd. In Phuket on July 26, the delegation was received by Governor Narong Woonciew.

The BIE will continue this project evaluation phase for Specialized Expo 2027/28 with visits to the other four candidate countries – Argentina, Serbia, Spain and the United States – wrapping up in mid-October. Following the last inquiry mission, the findings will be discussed by the BIE Executive Committee. The Committee decides which candidatures will be retained and thereby eligible for the final vote, which takes place in June 2023 during the BIE 172nd General Assembly of the BIE.

In the U.S., the bid for Minnesota to host in 2027 is significant in that there hasn't been a world's fair in this country since Expo 1984 New Orleans. The fact that the U.S. is able to compete to host an expo was made possible by its rejoining the BIE in 2017 after having left the organization in 2001.

Who's in the running for 2030?

Four countries are officially competing for the opportunity to host the 2030 World Expo. They are Saudi Arabia (Riyadh), South Korea (Busan), Italy (Rome) and Ukraine (Odessa). September 7, 2022, was the deadline for the four countries to submit the project in the form of a candidature dossier, after which the BIE will set up inquiry missions.



Osaka's Tsutenkaku Tower lit up in Expo 2025 colors.
Courtesy Japan Association for the 2025 World Exposition

Russia had also been a candidate with a proposal to host in Moscow but voluntarily withdrew in May 2022, due to mounting negative reaction to Russia's invasion of Ukraine. With a war currently raging, Ukraine as expo host also has to be a question mark, but a quick end to the conflict would offer a remarkable opportunity to tell a story of resilience and rebuilding.

It is the practice for competing countries to engage in various forms of promotion to gain visibility and support, and delegations will visit BIE members to promote their candidacy and seek their vote in the final election. In my former world's fair capacity at the U.S. State Department, I can recall several such visits.

Italy should have some momentum on the strength of having hosted a World Expo in 2015 in Milan, which enjoyed success with a theme centered on food. Korea also has a history of hosting expos, with a specialized three-month expo in Yeosu in 2012 and a three-month Specialized Expo in Daejeon in 1993. As part of its effort to win the competition to host Expo 2030, South Korea has enlisted BTS, a leading Korean pop group, to serve as ambassadors. At Expo 2020 Dubai, which was the first world's fair hosted in the MENA region, Saudi Arabia had one of the top-ranked pavilions, and the country is becoming a significant market for entertainment development. Saudi Arabia has made several announcements of individual countries pledging support for its proposed expo in Riyadh. • • •



Since retiring from the U.S. State Department in 2011 after a 30+ year career in world expos, James Ogul (jogul@comcast.net) has remained on the scene in an advisory and consulting role. He writes regularly for InPark Magazine about world's fairs. See his free online book, Tales from the Expo, at inparkmagazine.com/talesfromtheexpo/.

Cosm: From outer space to the attractions space

LED has arrived in the dome, and Cosm's pioneering CosmX Display and CosmX Engine are disrupting the media-based attractions space

by Judith Rubin

Rendering of inside Cosm's first public-facing venue in Los Angeles.
All images courtesy of Cosm

Pack your bags, you're going to Salt Lake City

Cosm formally emerged as a company in January 2021 following Mirasol Capital's acquisitions in 2020 of two leading innovators in the planetarium and domed projection industry (Evans & Sutherland [E&S] and Spitz, Inc.) and LiveLike VR (now Cosm Immersive), a top immersive production company in sports and entertainment.

With this potent mix – proprietary leading-edge technologies, digital assets, market goodwill and a top engineering team and brain trust – Cosm set forth to serve its combined companies' traditional markets while moving into the future. It addresses three verticals: sports and entertainment, science and education, and theme parks and attractions.

The new Cosm Experience Center at the company's Salt Lake City headquarters showcases Cosm's premium turnkey product: the CosmX Display (also known as the DomeX), and CosmX Engine. This sophisticated hardware and software package features an LED digital dome and real-time rendering for immersive, media-based experiences.

The successful application of LED display technology to the dome is a technical milestone – a pinnacle achievement that has brought a dramatic leap in visual quality, contrast and

brightness, beyond what projection can deliver. While Cosm still offers projection solutions as well, the LED dome has set a new standard in the industry for premium experience.

CosmX Display is the shining star at the heart of the company's bid for a bigger share of the attractions space, an initiative confidently led by CEO Jeb Terry and his team. To stoke this initiative, the company brought Doug Pagel onto the team in 2021, as Director of Worldwide Sales, Theme Parks and Attractions. Pagel is a business development specialist with more than a decade in the attractions sector.

The Cosm crew wants attraction operators, developers, integrators, creatives and other potential partners to visit the Cosm Experience Center for a first-hand demo, and to meet with them at the IAAPA Expo in Europe in September 2022 and Orlando in November 2022.

A new Cosm showcase is coming to California next year as well. The company is developing its first public venue, set to open in 2023 in Los Angeles, featuring the CosmX system in all its glory as part of the Hollywood Park retail district. The venue will include a 26.6-meter (87-foot)

diameter LED dome in a 65,000 total square feet facility that can hold up to 1,700 guests. Programming at the venue will include live sports and entertainment, experiential events and IP-based content, immersive art, music, and more.

“Cosm comes from combining cosmos and coliseum,” says Jeb Terry, Jr., CEO and President of Cosm, explaining the origin of the company name and the business vision. “Experience and fandom in general apply across this, whether in sports, science, entertainment or music.” Terry’s background is a blend of sports and tech. He was an NFL offensive lineman with the Tampa Bay Buccaneers and the San Francisco 49ers. In 2008 he became a tech entrepreneur and digital media executive focused on interactive and emerging technologies. “Our job at Cosm is to make sure we invest in our technology and our team to deliver the best experience ever.”

A history in attractions

Specialty theaters are defined more by content than technology.

Planetariums and science centers have custom immersive theaters that take visitors on storytelling journeys into space, nature and science; theme parks and attractions have motion rides, dark rides, flying theaters and 4D theaters that plunge guests into entertainment narratives.

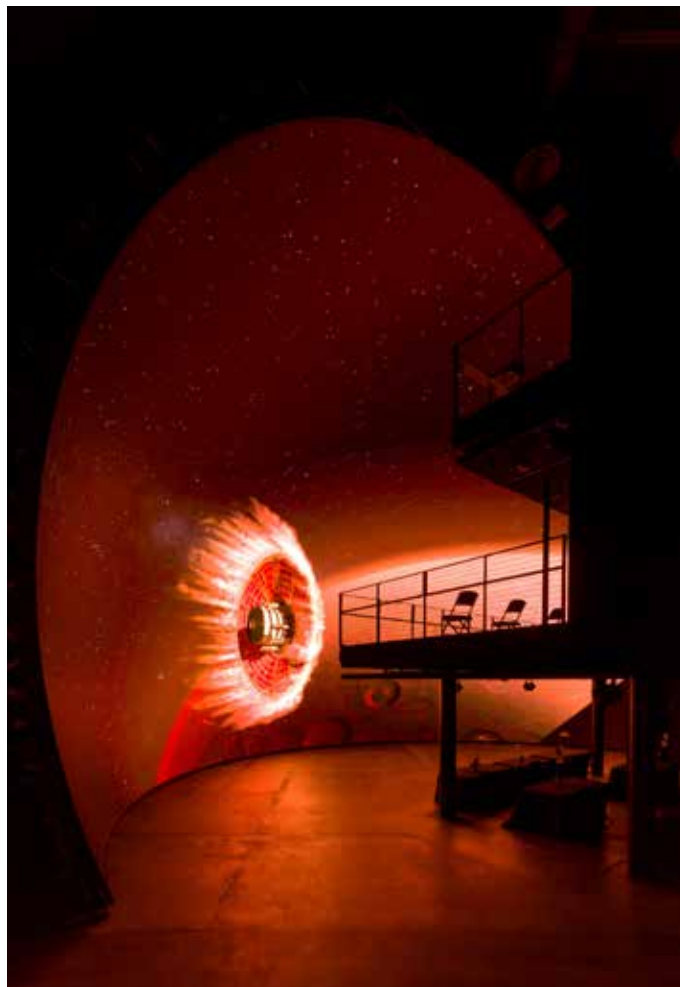
The delivery systems are comparable in their equipment and complexity, and the market segments converge. E&S/Spitz (now both Cosm companies), longstanding market leaders in planetariums and specialty cinema, already have a long history in attractions, primarily due to demand for their custom screens and displays. The Nanoseam screen, introduced by Spitz in 2008, is a key display component of some of the most innovative and celebrated media-based attractions in the world. E&S systems have also been customized for exhibits in a number of world’s fair pavilions over the years.

“We have always excelled in the attractions market with our domes and other displays and structures,” says Kirk Johnson, Executive VP and GM of E&S, a veteran of the planetarium and giant screen industry with the company since 1990. “Our work in engineering the world’s best immersive LED dome display is truly groundbreaking. There is no question that what we’ve created is the future of shared immersive experiences.”

“Cosm is a global technology company with a 75-year history pioneering the shared reality space. Our technology is used by the world’s largest entertainment brands to create mind-blowing immersive experiences for millions of guests,” says Doug Pagel.

How CosmX evolved

E&S was a pioneer in computer graphics for the simulation industry from the early, emergent days, and built on this to become a pioneer in digital planetariums with its widely adopted Digistar star projection system, introduced in 1983. Today, nearly all planetariums have fulldome systems: sophisticated, digital cinema hardware and software packages (usually with multiple



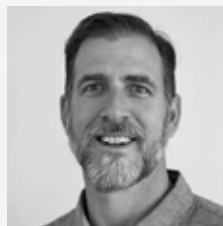
The Cosm Experience Center in Salt Lake City



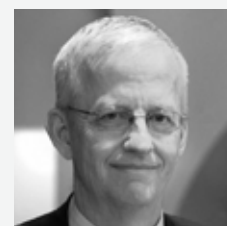
Jeb Terry, Jr.
CEO and President



Kirk Johnson
EVP & GM,
Evans & Sutherland



Devin Poolman
Chief Product &
Technology Officer



Doug Pagel
Director of Worldwide
Sales



Artist rendering of the exterior of Cosm's first public-facing venue in Los Angeles to open in 2023

projectors) that include digital video playback and real-time image generation for starfields and more. Fulldome systems opened up vast new possibilities for content and guest experience. The first permanent fulldome installation was the E&S StarRider in 1998 at Chicago's Adler Planetarium.

Fulldome continued to improve, and essentially transformed planetariums into high-end, digital dome cinemas with real-time interactivity. Top-of-the-line E&S systems led the way in replacing many aging 70mm film dome systems.

The image generation technology that enabled planetariums to host real-time journeys through digital worlds revolutionized their visitor experience; today, the same technology – more commonly known as a gaming engine – is also harnessed for real-time experiences encountered in dark rides and attractions. There is considerable, ongoing collaboration and crossover with sports, broadcast, VR and gaming.

It must be re-emphasized that until now, these systems have relied on projection (though often very high-quality projection). CosmX with its LED display (and myriad other features) represents a vivid, game-changing new option.

Cosm Chief Product and Technology Officer Devin Poolman, a digital platform specialist with a background in sports broadcast, says, "We're very excited about the opportunities for real-time, interactive experiences that can be different every time. A big part of this is making sure that the power and creative potential of the real-time engine are something that can be used by everyone in our customer community. This is one of the areas in which CosmX is truly transformational."

The CosmX components

The CosmX Display at the Cosm Experience Center takes the form of an LED 20-meter diameter truncated dome, vertically positioned to allow viewers full, floor-to-ceiling immersion. It touts over 5,000 square feet of display, with 8K resolution, including 29.5 million pixels, stereoscopic 3D capable and high-frame-rate capable up to 120 fps. The Cosm proprietary, LED display is a perforated screen made up of a series of panels that can be swapped out when needed.

The showcase includes a 30.4 speaker spatial audio system. According to Poolman, there are 16 speakers behind the dome. There is also an audio spatializer (an optional item) that enables pinpointing sound and mapping sound inputs. The audio is based on Dante and works turnkey with a variety of existing audio formats. It can be auto-tuned by the CosmX Engine or manually by the operator.

"Together, the CosmX Display and CosmX Engine provide everything to drive the dome and displays – from structural design to the actual frames that hang the panels, to the system software and hardware," says Poolman.

One of the benefits that Cosm's planetarium customers have enjoyed for a number of years is a repository of show resources in the cloud. Attraction operators and media producers can turn this capability to account in a variety of ways, for instance to create libraries for regular and special programming, to draw on content created by users around the world, or to store digital assets.

What Poolman terms “the best stereoscopic 3D in the business” is effectively delivered thanks to a combination of factors: a system configured for 120 fps frame rate (divide by two for 3D, 60 fps for each eye), active shutter glasses, and the overall brightness and contrast of the system with E&S patented technology. It can be combined with real-time content for a live immersive experience that guests can enjoy at the Cosm Experience Center. “We have overcome the major challenges and faults of projection-based 3D,” says Poolman.

In terms of installation and integration, how does it fit into a venue or complex? “CosmX is readily compatible with external show control systems,” says Poolman. “In terms of other building systems, we provide HVAC and power requirement specifications and it is typically very easy to fit into a project, with a straightforward install.” What if you haven’t updated in a long time? “We tackled just such a situation with the Cosm Experience Center,” he says. “Other than some electrical and HVAC updates it was pretty turnkey.”

Content: It’s Unreal

After visiting Cosm with a delegation from the Giant Screen Cinema Association in 2021, noted planetarian Ian McLennan called it “the first quantum leap I have seen in this industry.” But he wasn’t only referring to visual quality and capability – he was also talking about content.

The CosmX Engine is able to convert and optimize a dizzying range of content more or less automatically, with utter simplicity for easy viewing on the CosmX Display. It was purposefully designed to maximize the ability of creatives and operators to leverage its real-time capabilities and gaming tie-ins in as many

ways as possible. As Poolman says, “Building on 40 years of success with Digistar, which is the 3D engine underlying the system, the CosmX Engine supports working with new types of media, including third-party content platforms such as Unreal Engine that have revolutionized the virtual production space.”

“We have added features to the CosmX Engine that allow content to be displayed from virtually any source, including real-time, Giant Screen video, VR 360, Unreal and many other sources,” says Johnson. “This provides unrivaled flexibility for our customers to create and display anything they want or need.”

The idea here is that content can truly rule. “With these compatibilities, you’re not limited to things created specifically for Digistar or our CosmX Engine – you can develop any content for immersive scale environments and realize it with the system’s best-in-class rendering engines,” says Poolman. “You can add inputs for different levels of immersive experience – blaster devices that can blow things up on the screen, mobile experiences where guests use their own devices.... Motion capture systems, trackers or other props can be part of the experience. We’ve demonstrated this to many visitors at the Cosm Experience Center.”

But how? “The CosmX Engine can resize, move back, move forward, etc. – giving complete control over how something is laid out in a 3D world,” says Poolman “This is true for all images, video and content made for immersive viewing – they might have varying ranges of field of view, but you can control how they are mapped on screen down to the pixel, zoom in, and shift around.” And, he explains, the system will adapt to the display configuration, meaning it doesn’t have to be a perfect



Cosm hosted a Shared Reality watch party during the 2020 Tokyo Olympic Games at their Experience Center in Salt Lake City. *Immersive feed courtesy of NBC.*



Cosm Experience Center in Salt Lake City

dome. Poolman says, “That includes custom displays of varying geometries, toroidal screens, slice-of-sphere, etc. It can adapt regardless, even handle real-time projection mapping. For most content formats it is drag-and-drop. It will ingest and display out of the box, but you can jump in and customize.”

“The CosmX Display alleviates the limitations of previous projector-based domes and curved displays,” says Johnson. “It provides a blank canvas for producers to be completely creative and translate their ideas in ways previously not possible. They aren’t just limited to cameras or video. So many tools and formats are available now for producers to create whatever they can imagine. Producers may find that they need to up-level their techniques to make the most of it. At the same time, we can make their existing content look better than it has ever looked before. The CosmX Engine gives content producers much more in the way of flexibility and tools than anything previously available.”

Helping to make things really pop is the unprecedented level of contrast. This system provides the ability to have the brightest lights and the blackest black – Cosm black, absolutely pitch black, even in a dome, which previously was not possible,” says Poolman. “We stand behind that.”

Transforming attractions

Pagel reports a high level of interest among theme parks, stand-alone attractions, resorts and attraction suppliers. “We have seen a strong enthusiasm in a variety of use cases and markets where Cosm provides a ‘Suspension of Disbelief’ to the guest,” he says, and named specific examples.

Media based flying rides: “The CosmX Display does not have line-of-sight restrictions that projection systems may have, allowing for a deeper immersion of the guest within the display especially from the peripheral viewpoint,” says Pagel. “And because of the brightness and high resolution of the display, our CosmX system provides a high sense of perceived motion on its own which is then complemented by the motion and SFX features of the attraction.”

For dark rides: “The CosmX Display visually expands the space in the room, providing a greater impact for the guest. Guests will be convinced that they are exactly where the content takes them. In addition, having CosmX Engine seamlessly integrated with Unreal and Unity game engines unlocks interactive tracking capabilities for complete creative control and maximum audience participation.”

Pagel also sees the technology being incorporated for some less traditional entertainment experiences that are growing in popularity and may exist as standalone venues, pop-ups or within a larger complex. He cited immersive dining, virtual aquariums, dance clubs, virtual tourism, live event programming, cinema, performance arts, and more.

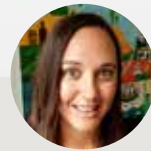
“You can talk about 150 foot-lamberts of brightness, 8K or higher resolution, orders of magnitude higher contrast... But until you sit inside the display and experience it, you don’t fully understand how transformative and emotional the experience can be,” says Johnson, in a reminder that ultimately, success is defined by a great guest experience.

And Terry, for his part, reminds us that achieving those goals is ultimately all about people. Having successfully launched Cosm in the throes of the early pandemic, there’s probably nothing that could put a dent in Terry’s enthusiasm and energy as he continues to build his team and pursue his vision. “What has made these companies great is not just the ideas but the people, the history, the clients. There was a lot of undocumented expertise in the energy of these companies, with so many team members of long standing. This amazing group of people helped build the foundation. It was our goal and our job to listen and learn with open ears and open eyes, to gain an understanding beyond the numbers, learn what makes our clients happy, cultivate what’s great. That’s been the core. The foundation of excellence is here.”

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WWA Show 2022 is calling you to Vegas

Melissa Lockwood, with an impressive career in waterpark management that spans the globe, shares her insights on the industry and all the things to look forward to at the upcoming WWA Show in Las Vegas

interview by Martin Palicki

Mmeet Melissa Lockwood. She began her career as a lifeguard, pool manager and swimming instructor during high school and college. Melissa worked in municipal parks and recreation in Missouri and Texas while completing her Masters in Recreation and Leisure from the University of North Texas. She opened Yas Waterworld in 2013 and also managed Ferrari World Abu Dhabi for several years before returning to Yas Waterworld as Director of Operations. Melissa became General Manager of Baha Bay in 2019, a new waterpark at Baha Mar Resort in Nassau, Bahamas. She sits on the Board of the World Waterpark Association, where we reached out to her to find out about the upcoming WWA Show taking place in Las Vegas October 4-7, 2022.

Tell us about Baha Bay.

The park was under construction when I joined and its completion was the final piece of development for the 1,400-acre Baha Mar Resort campus when it opened in July 2021. The park is set over 15 acres and is home to more than 30 rides, slides and attractions, including the world's first FlowCurl from FlowRider and the Caribbean's first Dueling RocketBLAST from ProSlide. Baha Mar Resort guests have park access included in their stay and we also have a main gate for general access. The park has been hugely popular with our resort guests and has allowed the resort to attract more families to stay.



Baha Bay's waterpark in The Bahamas, where Melissa Lockwood is the General Manager
Photo courtesy of Baha Bay

How did you get involved with WWA and why are industry associations important?

I was introduced to WWA while working for the City of Keller, Texas, which was a member of the association. I was able to speak at the WWA show in 2011 in New Orleans.



Melissa Lockwood

Being involved in WWA and other industry organizations has been beneficial to my parks, my colleagues and my career. I have presented at several WWA shows, WWA Middle East Symposia, and IAAPA Expo Europe. By sharing my knowledge and experience I am able to give back to our industry while continuing my own learning process. The networking aspect is also important; our industry is smaller than you think and it's always great to catch up with old friends and make new connections.

What's your elevator pitch for the WWA Show?

Who doesn't like some time in Las Vegas?! It's the one time each year we really get to reconnect with our peers, attend inspiring educational sessions, research new products and vendors and have fun together!

Why do you keep coming back to the WWA Show?

I have been to trade shows while working at municipal facilities, private waterparks and now resort parks. These shows are a great opportunity to bring valuable information back to your organization and learn what's new and upcoming in the industry. I always come back home with actionable ideas for revenue, safety, operations and more. It's a great opportunity to find something new to implement at your facility as well as make those connections that you can reach out to when you have challenges.

What are you looking forward to most for this year's event in Vegas?

Being back in Las Vegas will be great after the 2020 show became virtual due to COVID-19. I always look forward to reconnecting with industry friends, some of whom I've known for 20+ years now! I'm looking forward to the trade show floor to see what new products are available as well as the annual reunion party at Cowabunga Bay.

What are some of the unique challenges you are facing currently that will be addressed during WWA?

I believe we have all been impacted by supply chain issues over the past three years. I'm looking forward to connecting with vendors and looking for additional solutions. I have heard from many other operators who are facing staffing challenges as well. I'm excited to attend "Building Your Full-Time Leaders Into Future GM's" with Stephanie Hee-Johnston & Frank Perez and I think the Keynote Session from Punam Mather on Friday morning will be instructive as well.

What other important issues is WWA helping to address, both at the show and at large?

Throughout COVID-19, WWA compiled great resources for members and continues to do so. One of my favorite WWA

initiatives is the World's Largest Swimming Lesson (WLSL). WWA and its partners organize the WLSL each year with the goal to eliminate drowning – Swimming Lessons Save Lives! The 2022 event was the first year that Baha Bay was open and we had a great turnout. It reminded me that what we do as an industry can really have an impact on our local communities.

What's your favorite waterpark?

There are so many to choose from but I'm going to go with the nostalgia factor of Big Surf Waterpark at The Lake of the Ozarks in central Missouri. I've been visiting since I was a kid!

Are you planning to do anything else fun while you're in Vegas?

I am going to stick around town a few extra days and have a girls' weekend with some friends. We are going to see some shows, have a relaxing pool day and hopefully not lose any money on the tables!

For more information or to register for WWA Show 2022, visit wwashow.org • • •



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EPCOT at 40

The transformation of EPCOT reflects a changing worldview

by Joe Kleiman

Publisher's Note: EPCOT is undergoing a multi-year transformation, much of which has been a big part of the Walt Disney World Resort's 50th anniversary celebration. It also leads up to EPCOT's own 40th birthday, happening on October 1, 2022. New attractions and shows, themed dining, reimagined "worlds" and more are all contributing to EPCOT's new look, feel and vibe. Walt Disney World graciously invited IPM to explore these new elements across the Resort over the last year. In addition to Joe's look at EPCOT's evolution, I encourage you to read his contextualization of the new Guardians of the Galaxy: Cosmic Rewind pavilion, check out the related podcasts and previously published articles, and look at my own interview with Imagineering's Kristine Bunnell. All can be found in this special mini-section and on our website. Happy Birthday EPCOT, and Walt Disney World!!

— Martin Palicki

Even when EPCOT Center opened at Walt Disney World on October 1, 1982, it was never meant to be complete. The Journey Into Imagination ride would not open for another five months, the Horizons pavilion was a year away, and The Living Seas would open three years after that. Nearly every Future World pavilion received some sort of major overhaul over the years, with some, like Mission: SPACE and Test Track, drastically changing the pavilion's original experience. In World Showcase, new pavilions Norway and Morocco joined the international neighborhood.

Today, EPCOT is in the midst of the largest transformation in the park's history, driven by a changing business structure and by how the Internet has brought us closer as a global society. The process is inspired by the past, representative of the present, and designed to be adaptable for the future.

The world's fair analogy

When it opened in 1982, EPCOT Center was often referred to as a "permanent world's fair." Split into two sections, Future World and World Showcase, it was loosely based on the 1964-1965 New York's World's Fair, with its huge corporate pavilions and historic international villages. EPCOT Center's policy of showcasing the



The center gardens of World Celebration
Artist Concept Only ©Disney

best of American industry came from the proposed Experimental Prototype Community of Tomorrow (EPCOT), a planned city within the Walt Disney World Resort that Walt himself had been developing. After Walt's death, concepts from his vision of EPCOT were repackaged into theme park form.

Future World pavilions were developed that would showcase specific themes, each sponsored by a corporate leader in that sector – The Bell System (communications), Exxon (energy), General Electric (future technology), General Motors (transportation), Kodak (imagination), Kraft (agriculture), United Technologies (the oceans) and Sperry Univac (computer technology). Future World pavilions added later also featured corporate sponsorship, with healthcare insurance company MetLife behind Wonders of Life and Compaq (acquired by Hewlett-Packard the year before the pavilion's opening) sponsoring Mission: SPACE.

Sponsorship also played an important role in World Showcase, where pavilions were designed to reflect historic landmarks, providing a timeless, romantic view of each nation. Originally, a mix of private companies and national agencies sponsored many of the World Showcase pavilions.

It was through these pavilion sponsorships that Disney was able to offset some of EPCOT's initial construction cost. In fact, many argue, without that sponsorship model, EPCOT never would have been built.

Changing business strategy

Today, only one of the Future World pavilions retains corporate sponsorship. Chevrolet, a General Motors subsidiary, sponsors Test Track. The gradual move away from corporate-sponsored pavilions is balanced by a rise in Disney-branded attractions within the pavilions.

In 2007, six years after United Technologies ended its sponsorship, The Living Seas was rethemed to the Disney-Pixar *Finding Nemo* franchise. The same year, the Rio del Tiempo boat ride in the Mexico pavilion was rethemed to the classic Disney film *The Three Caballeros*, starring Donald Duck. Later, the Norway pavilion saw multiple attractions added based on the Disney film *Frozen*. The inclusion of Disney IP is part of a greater synergistic move by the company to cross-platform through media, consumer goods and parks, a move that resulted in the merger of the consumer products and parks divisions in 2017.

Changing perception of the world

As part of EPCOT's current transformation, Future World is no longer and has been replaced by three distinct neighborhoods that complement each other and World Showcase – World Discovery, World Celebration, and World Nature.

In 1982, the year that EPCOT opened, the Advanced Research Projects Agency Network (ARPANET) published its annual ARPANET Directory, a listing of every person and organization who had an email address that year. There were fewer than 10,000. At the end of 2020, there were an estimated 4 billion email users worldwide. The ability to instantly communicate through digital devices has brought the world closer together. The new design template for EPCOT acknowledges that.

Barbara Bouza, President of Walt Disney Imagineering, is an architect by trade, as are both her predecessor, Bob Weis, and EPCOT portfolio executive Zach Riddley. The new approach is one that – much like more recent world expos in cities such as Milan and Dubai – examines the roles of connecting people with one another, with nature and with architecture.

Says Riddley, "EPCOT has always been about what's possible, but it's also about connecting to the global community."

InPark video interviews with Disney Imagineering on EPCOT's transformation

Joe Kleiman talks with Zach Riddley, Brianna Pfost and Evan Miga





Artist rendering of CommuniCore Hall and CommuniCore Plaza
Artist Concept Only ©Disney

A strong example of this new approach is the conversion of the park's central pavilion CommuniCore from a large concrete structure built in the early 1980s to a much more open environment consisting of a large retail space (Creations) and eatery (Connections). Connections houses its kitchen in the center of the space, with large windows on all sides allowing diners to view the park's gardens and people-watch. "You can see multiple destinations from the inside," says Riddley. "You can see into these buildings. They're bright and transparent." USB charging ports are found throughout the restaurant, as are tributes to both the park's history and the original Experimental Prototype Community of Tomorrow concept. On one wall, a giant mural honors agricultural traditions around the world, showing that while different, we are very much the same.

According to Bouza, "I like this concept of marrying what we do with really understanding the rich legacy of Imagineering. I'm very focused on how we're starting to look at the future, but also, how do we leverage our history?"

Case in point: Although not part of the original transformation, the original CommuniCore name will soon return. Plans for EPCOT include CommuniCore Hall, which will feature a

stage and indoor exhibition area. It will be accompanied by CommuniCore Plaza, acting as a central hub for the park. Throughout the park, wayfinding has been standardized by using an updated version of the 1982 EPCOT Center font and expanding the use of the original circular pavilion icons. Throughout the park, the geodesic tile structure of the iconic Spaceship Earth pavilion can be found on surfaces ranging from wall patterns to manhole covers. The EPCOT logo itself has been updated, with its rings now colored to showcase the visible spectrum, representative of all nations and communities of the world.

"The way we talk about EPCOT is the magic of possibility, and the possibility that inspires us. This is a park about humans, about things that resonate with us, and that underlies the thread that runs through all the stories we tell," says Riddley. "All of our parks have an ongoing evolution and Walt had a great quote that we always talk about: 'EPCOT will always be in a state of becoming.' For us, that's never more true than what you see now, and even with this part of the transformation, we're setting the stage for the next fifty years." • • •

InPark Tracks #30: Something old, something new, something borrowed...

We talk about changes at EPCOT, including interviews with Imagineers on Remy's Ratatouille Adventure and Guardians of the Galaxy: Cosmic Rewind.



Being Harmonious

interview by Martin Palicki

Walt Disney World's 50th anniversary, which commenced on October 1, 2021, is bringing many new experiences across the resort. One of the most highly anticipated debuts was EPCOT's nighttime spectacular Harmonious. The show replaced IllumiNations: Reflections of Earth, which was performed in the World Showcase Lagoon for about 20 years until the temporary show Epcot Forever took over while Harmonious was being installed. We interviewed Kristine Bunnell, Senior Producer with Disney Live Entertainment and Producer on Harmonious. She's produced a variety of shows and experiences for Disney including the Festival Fantasy Parade, Wishes fireworks, Holidays Around the World and more.

Describe Harmonious for us.

Harmonious is one of the largest nighttime spectaculars we've ever created. It is a celebration of Disney music and stories like you've never heard before. Our classic Disney songs are reinterpreted by a diverse group of musical artists from around the world, inspired by the cultures where those stories came from.

Visually, it's stunning. It's everything you can imagine a nighttime spectacular would have: multimedia projection, fountains, moving lights, fireworks, lasers and these new choreographed, giant moving arms.

What other elements are part of the production?

We had an impressive toolkit to work with for this show. The choreographed arms I mentioned are part of these new five floating scenic platforms on the lagoon that allow us to tell our story in a completely new way. We also use many of the things around World Showcase that were part of IllumiNations, including the torches and lights on the pavilion buildings. The center icon is 65 feet above the water and from that we have moving lights, moving fountains and pyrotechnics. It's on a very grand scale and it all integrates for a truly immersive experience.

As a storyteller, how do you create a story that is viewed from 360-degrees around the lagoon?

From the very beginning we wanted to have a show that a guest could experience from anywhere around the lagoon. The toolkit I just described really does allow the guests to experience the show no matter where they are located. Actually, there are times in the show where I think guests will want to come back and see it several times, because the media and effects are slightly different in different locations.

How do you think fans of Illuminations will feel about Harmonious?

I think they're going to be blown away. For us, this is looking toward the future. Harmonious is a major centerpiece and milestone of EPCOT's transformation. So I think they'll be excited about where the park is going and the stories that we're telling with Harmonious.

Tell us more about how the show fits into EPCOT's transformation.

The show is about global connectedness. Disney music and stories connect people from all over the world. Music is a universal language and I think the hope for the future that this show inspires is a perfect complement to EPCOT.

What do you want people to walk away with after the show?

I want them to be inspired and feel that emotional connection and see themselves in the stories we present. Many of the characters we present are seen in silhouette, and I think people from different cultures and backgrounds may have strong connections to these stories and the way we present them. We want them to feel that and feel like they are part of the experience. •



Harmonious at EPCOT is one of the largest nighttime spectaculars ever created for a Disney theme park, featuring massive floating set pieces, custom-built LED panels, choreographed moving fountains, lights, pyrotechnics, lasers and more.

Photo ©Disney (David Roark, photographer)

Contextualizing EPCOT's Guardians of the Galaxy

by Joe Kleiman

Known as the Wonders of Xandar and advertised as the first "other-world" showcase pavilion at EPCOT, Guardians of the Galaxy: Cosmic Rewind's main attraction is a rotating roller coaster ride through both space and time. The entrance to the pavilion, which formerly housed the Universe of Energy pavilion, is highlighted by a full-size Starblaster patrol ship from the fictional Marvel Comics planet Xandar. Once inside, the attraction's queue entails a storyline that the people of Xandar are sharing their culture and commonalities with Terrans in much the same way that real Earth nations do in the park's World Showcase neighborhood, albeit some of the Xandarians' understanding of human culture has been distorted by the characters of the Guardians of the Galaxy film franchise.

There is a defining point at which the attraction splits from its EPCOT-style preshow to the ride experience, a demarcation line marked by moving from a preshow room where guests are told they will be transported to a space cruiser orbiting Earth for the final part of their Xandarian experience and the next room, where they are actually "beamed" aboard, whereupon mayhem ensues.

It is the first portion of the pavilion which most directly links to EPCOT's past, paying tribute to Van Romans and his teams of curators and registrars who brought a sense of realism to the original romanticism of EPCOT.

As Executive Director of Cultural Affairs for Walt Disney Imagineering, Van Romans worked with international governments and museums to collect cultural display items for EPCOT's World Showcase galleries as the park was being developed. He also oversaw The Disney Gallery attractions

at Anaheim's Disneyland Park and Tokyo Disneyland, both of which showcased concept art for Disney's theme parks. At EPCOT, he was responsible for incorporating authentic items into the simulated environments being constructed, initially in the World Showcase pavilions.

The model of showcasing exhibit quality pieces in attraction buildings worked and began to spread into EPCOT's adjacent land: Future World. When The Living Seas pavilion opened, artifacts were taken out of a traditional gallery setting and integrated into the queue for the attraction. While waiting for their hydrolator ride to SeaBase Alpha, guests were able to examine items like an 18th-century diving dress or 11-foot model of the Nautilus submarine. This concept of integrating actual items into queue design continued with Mission: SPACE and both the original and current versions of Test Track.

Romans also worked on the development of the Disney/MGM Studios theme park (now known as Disney's Hollywood Studios) at Walt Disney World. The animation walkthrough featured Oscars from the Walt Disney Archives, while The Great Movie Ride included actual props within the queue, including a rare pair of ruby slippers from The Wizard of Oz, along with historical movie props within the attraction scenes themselves.



The entrance to Guardians of the Galaxy: Cosmic Rewind at EPCOT.
Photo ©Disney

InPark Tracks #31: Something blue (EPCOT's Space 220 restaurant)

InPark explores the dining experience inside EPCOT's Space 220 restaurant.



Guests in the queue for Guardians of the Galaxy: Cosmic Rewind enjoy exhibits based on Xandarian culture.
Photo ©Disney

The Xandar Gallery, part of Cosmic Rewind's queue, continues this tradition of attraction and exhibition design initiated by Romans and his teams. The queue, through its use of models, costumes, and "holographic" displays, addresses important issues of sustainable communities and international (or intergalactic) peace. At one point, a scene from Walt Disney's 1966 film explaining his Florida project to state lawmakers pops up on a screen, showing the similarities between Xandarian city design and Walt's original concept for the Experimental Prototype Community of Tomorrow, a planned city better known by its acronym of EPCOT.

The queue for Cosmic Rewind serves an important purpose. It is placemaking for the attraction, acting as a bridge between the EPCOT of the past and the EPCOT of the future. While the artifacts may not be authentic in the same way as those described above, the exhibit introduces audiences to the attraction story, engages them in pertinent topics, and ultimately pays tribute to the legacy of EPCOT, Van Romans and the countless artists, designers and curators who helped to imagine it. •



A view of the new otter habitat at the Houston Zoo's Pantanal exhibit.
Unless noted, all photos courtesy of COST of Wisconsin

Artistry, quality and authenticity

For 65 years COST of Wisconsin has been serving zoos, theme parks, casinos, retail and more

by Gabrielle Russon

The otters' new playground at the Houston Zoo features rocks that appear real. The intricate stones look slightly faded by the elements and time, all part of nature's glory.

Yet those beautiful rocks visitors peer at in the animal exhibit are actually made with a shotcrete (pneumatically-applied concrete) application. COST of Wisconsin, a full-service fabrication shop with a long history of building zoological exhibits, used shotcrete with multiple layers of painting to create realistic results.

"That's what we pride ourselves in – the quality of our work, and the detail that our artisans put into it, to make it look so natural that the general public cannot tell the difference between natural or faux settings," said Mike Schmuhl, the company president. The 65-year-old, family-owned business has built rockwork, water features, sculptural elements and themed specialty fabrication on display at zoos, theme parks, casinos, retail spaces and elsewhere.

COST employs about 200 people and operates a 144,000-square-foot production site in Jackson, Wisconsin, with additional offices in Seattle, Orlando and Canada. Besides fabrication and construction, COST also offers services including pre-construction work, design assist as well as shop drawings and modeling – both physical and 3D modeling.



Mike Schmuhl,
President

Creating these immersive rock environments are the COST artisans. They pay close attention to an extraordinary level of detail, and what they do goes beyond materials and technology: it depends on their hands, skills and dedication. "It's really all about the artistry, quite frankly," said Christopher Foster, COST's sales and marketing vice president. "The artistry is what pulls it



Christopher Foster, VP
Sales and Marketing

all together, and really provides the beautiful finishes...It comes down to people that really work well with their hands and have attention to detail and a flair for artistry.”

COST handled rockwork and much of the theming fabrication for the Lost Island Themepark that opened in June 2022 in Waterloo, Iowa. COST was involved in creating pieces for four of the five themed lands at the new park, including one of the signature and complex visual elements, a giant, 40-foot-tall volcano with a rock sculpture emerging from the rockwork and an interactive fountain feature.

The company’s work is also integral to several internationally inspired zoo attractions in the United States that either opened recently or will debut next year.

Bringing Cambodia to California, authentically

In the heart of the Fresno Chaffee Zoo, COST is helping to build the Kingdoms of Asia exhibit that will be the new home for tigers, Komodo dragons, orangutans, songbirds and other animals. When the exhibit opens next year, visitors will pass through an east entry icon that resembles an ancient Cambodian temple adorned by the Faces of Bayan.

The zoo brought in an external team to help make sure the new exhibit was respectful in preserving the heritage and getting the details, both big and small, accurate. Guiding the designers and builders throughout the thematic process were local leadership at United Khmer Cultural Preservation, the Fresno Center, and the Fresno Cambodian Buddhist Society. “They were right there to work alongside the project team,” Foster said. “Their tremendous knowledge on the historic accuracy of these elements provided theme enhancements that are authentic to the original structures.”

That insight and feedback were instrumental in helping the zoo and COST’s team replicate the exhibit as authentically as possible – from how the door framing should look, to how the Faces of Bayan must always be displayed in fours, explained Foster. “The detail is so paramount. It’s not just replicating a nondescript theme of ruins. Kingdoms of Asia really immerses their guests in a Cambodian experience,” he said.

COST’s scope of work included fabricating GFRC (reinforced concrete) trim and molding that were used against the stone face plaster ruin walls to emulate the ancient Angkor Wat, and finishing the streams and ponds with earthen textures.

Immersion at the Houston Zoo

At the Houston Zoo, COST recently completed the South America’s Pantanal exhibit that recreates the South American wetlands, and then moved into work on the zoo’s state-of-the-art Galápagos Islands exhibit that is set to open in 2023.

“You’re going to see amazing animals and you’re going to experience the feeling of being in the Galápagos. So everything is really tied into this immersive, themed experience,” Foster said. “The level of detail and authenticity that has been taken on these projects is really next-level.”

At the Pantanal exhibit, COST crews provided secondary steel and structural shotcrete coats throughout the otter, macaw and jaguar exhibits, and built simulated rockwork and earthen texture finishes in the otter, macaw, jaguar exhibits, and some common areas. South America’s Pantanal was recently awarded the Top Honors Exhibit Award at the 2022 Association of Zoos and Aquariums Conference.

At the Galápagos Islands exhibit, COST’s scope of work includes building sea caves, using reference material from the Galapagos to ensure the caves and the rockwork look as authentic as possible.



Shown here under construction, COST’s work on the Fresno Chaffee Zoo’s Kingdoms of Asia exhibit is inspired by the ruins of Angkor Wat in Cambodia.

“It’s a really cool piece,” Schmuhl said. “The cave is composed of concrete that’s reinforced with rebar, so our artisans here in Wisconsin artistically build the rockwork armature out of rebar to get the shape. Then when it arrives to the project, it’s pieced back together like a puzzle, reassembled, and shotcrete is applied for the structural integrity of the cave. Afterwards a finished, carved coat of concrete is applied last, where the artists will sculpt to resemble natural rock.” The final application is the paint “to make the rockwork look as natural as can be,” he said.

For both the Pantanal and Galápagos Islands projects, COST was brought onto the team during the preconstruction stages and worked with the project team through the shop drawings and scale models.

The rockwork process

In the theme industry, 3D models are often the platform of choice for a fabricator to simulate what the finished rock pieces will look like. But not all COST’s clients want something digital.



Rockwork theming at the new Lost Island Themepark, courtesy of COST of Wisconsin. Photo courtesy Lost Island

Sometimes it’s best to have something to hold in your hands. For zoological exhibits such as those created for the Houston Zoo, “the physical model is still a huge driver in the approval process and basically delivering on the design intent,” Foster said. “In a 3D environment, you’re not able to see as much realism in the depth and the coloration of the rockwork as you can in a physical model that is sculpted.”

The next step in the process is for COST to take finished models back to the fabrication plant where the company operates GFRC, FRP (reinforced polymer) and urethane spray departments as well as paint booths. Within the plant, there are also departments set up for theme carpentry, mechanical systems, and steel fabrication.



COST’s handiwork can be found in the intricate exterior of the Totara Market restaurant at Lost Island Themepark. Photo courtesy Lost Island

The plant also contains a 3D printer used to print scale models up to full size, and a waterjet machine for creating parts to build structural systems as well as artistic signage. An automated rebar bending machine follows the data from the 3D digital models which automate the rebar build to precision. “We have a CNC machine that helps us duplicate 3D digital model artwork as well,” Schmuhl said.

Stability in the plant

An important competitive factor that distinguishes COST within the industry, and helps ensure a high-end and consistent product, is the stability of its workforce. The company employs about 200 people, including artisans and field crews to assemble the projects. COST performs almost all work in-house in order to maintain its high QA/QC standards. The company doesn’t usually outsource work to subcontractors or freelancers.

“If you hire a field team and artisans for one project, and then on the next project, you hire another team, then consistency and the quality are likely to vary from project to project,” Foster said. “So by having our own employees that follow the same QA/QC programs, we can deliver a consistent level of authenticity and quality finishes.”

Many of the artisans working at COST studied at art school and enjoy working in different mediums. They have acquired skills that help them turn concrete into intricate-looking themework

by hand carving, sculpting and painting it with natural-looking finishes to resemble ice, snow, ruins, rock, trees, roots and more. COST also works in the spirit of collaboration, as with the Houston Zoo projects where COST’s field team worked closely with the zoo’s artisan team. “The blending of the areas is really seamless. And I think that’s a real tribute to the teams that were working hand-in-hand to deliver this project,” Foster said. In the end, the artists’ skills, high standards and dedicated collaboration result in a finished product that looks and feels real and genuine, helping the zoo to connect, engage, educate, entertain and wow their guests. •••



Gabrielle Russon (gabriellerusson@gmail.com) is a freelance journalist who lives in Orlando. She previously covered the business of theme parks for the Orlando Sentinel, earning several statewide and regional honors for her coverage over theme park injuries, the economic challenges facing theme park workers and the pandemic’s impact on the tourism industry. A Michigan native, she is a Michigan State University graduate and has worked at the Sarasota Herald-Tribune, the Toledo Blade, the Kalamazoo Gazette and the Elkhart Truth during her newspaper career. In her spare time, she loves visiting Orlando’s theme parks and running marathons.

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Waterpark resort development: successes and pitfalls

There are new opportunities for developers and investors as the market recovers

by David J. Sangree, MAI, CPA, ISHC

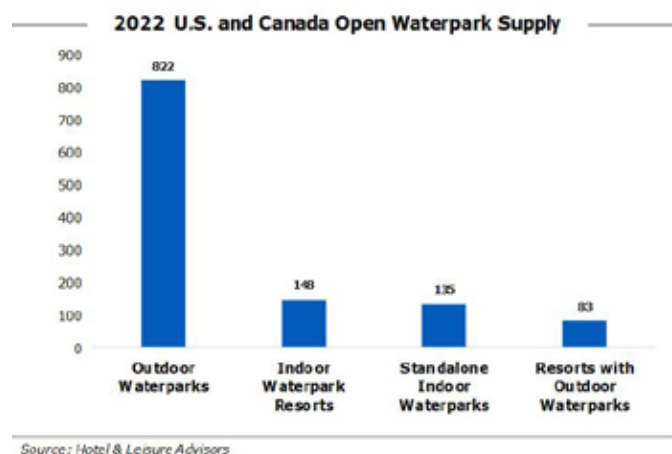
The waterpark industry continues to flourish in the United States and Canada. While the pandemic slowed demand and growth in 2020 and 2021, 2022 has largely been a return to normal for operators but also for developers and investors looking for new opportunities to leverage the growing popularity of waterpark resorts along with increasing consumer demand for fun, family-oriented vacation options.

In 2022, the industry has enjoyed strong average daily rate (ADR) growth and higher day pass ticket prices, allowing for increased revenue. However, construction costs have increased, and developers continue to face financing challenges. Despite the industry's many successes, there have also been some failures, showing that when planning a waterpark resort, there is no substitute for due diligence, proper planning, and a long-term vision.

The U.S. and Canada waterpark properties achieved total revenues of over \$8.5 billion in 2021. The waterpark resort segment, which includes indoor waterpark resorts and resorts with outdoor waterparks, represents 19% of waterpark supply in the United States and Canada, but the waterpark resort revenue was 74% of the total revenue for all waterpark properties. Resorts include attached hotels that typically have additional amenities such as restaurants, conference space, retail, spas, and other attractions. The resort figure includes all revenue from the waterpark resorts during the time when the waterparks are open (excluding the cold weather months when resorts with outdoor waterparks close their waterpark). This article focuses on the waterpark resort segment.

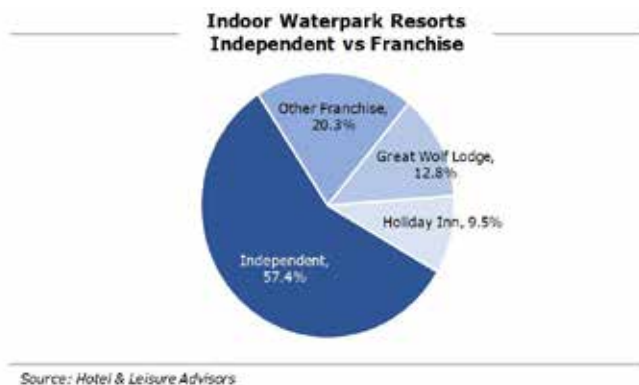
Indoor waterpark resorts

Indoor waterpark resorts represent 12% of the total market and the total number (148) has been relatively stable over the past seven years. More than half (57%) of these properties are independent, while 43% are affiliated with a franchise. More than half of the franchise properties are affiliated with one of two chains: Great Wolf Resorts and Holiday Inn.



Current waterpark supply

As of July 2022, the United States and Canada had a total of 1,188 waterparks, the majority of which are outdoor waterparks. Hotel & Leisure Advisors has identified nearly 20 new facilities with the potential to open by year-end.



By 2026, 18 new indoor waterpark resorts are expected to open, with 10 being independent and eight being franchise affiliated. However, some of these have yet to obtain financing. Great Wolf

Lodge will open five properties, bringing the company's market share to 14.5% of indoor waterpark resort properties. More than \$4 billion in projected construction of indoor waterpark resorts will occur in the next few years.

Great Wolf Resorts has broken ground on their upcoming Perrysville, Maryland, and Naples, Florida, properties, which are slated to open in 2023 and 2024, respectively.

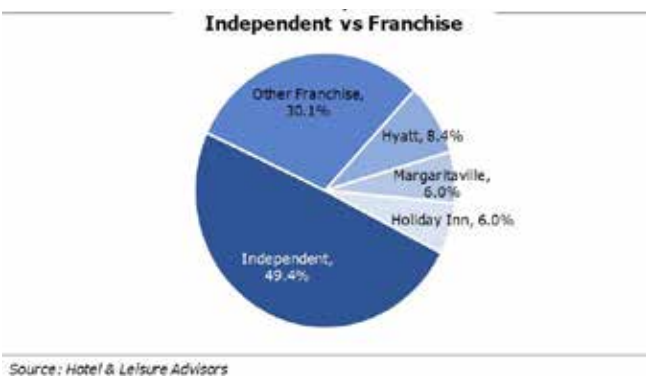
- Perrysville is the largest of their upcoming properties, with 700 guest rooms and a 126,000-square-foot indoor waterpark
- Naples will offer 500 rooms and a 100,000-square-foot indoor waterpark

Three Great Wolf Resorts are currently in the development stages with debuts planned for 2024.

- Jackson, Tennessee, will have 400 guest rooms and an 80,000-square-foot indoor waterpark
- Webster, Texas, will have 400 guest rooms and an 80,000-square-foot indoor waterpark
- Foxwoods Casino in Mashantucket, Connecticut, will feature 550 guest rooms and a 90,000-square-foot indoor waterpark

Outdoor waterpark resorts

Outdoor waterpark resorts are the smallest segment with properties representing 7% of the total waterpark market. This is the fastest-growing segment of the four waterpark segments with an increase in supply of 37% between 2014 and 2021. These properties are approximately evenly split between independent operators and franchises. Hyatt is the largest individual brand in this segment followed by Margaritaville and Holiday Inn.



A number of existing hotels and resorts are adding outdoor waterpark features in the United States. We are tracking six new resorts with outdoor waterparks that are planned to open in the next three years.

Preparing for success

With the success of many waterpark resorts in North America, it's easy to lose focus on what makes a waterpark resort successful. The "if you build it, they will come" mentality is not a viable strategy. There are several key factors that developers, investors, and operators need to keep in mind when considering new builds or significant renovations.

- 1. Demographics:** The strength of the population base, household incomes, regional employment levels, and tourism are key demographic trends that are important to analyze. Properties developed with stronger population bases or in markets with heavy tourism will have a significant advantage in attracting overnight guests and day visitors. As waterpark resorts become more widespread, consumers have multiple options in many markets, creating increased competition.
- 2. Complementary Tourism Attractions:** While many waterpark resorts bill themselves as destination resorts, smaller properties must rely on nearby attractions to help boost tourism, and thereby park attendance. These family-oriented attractions prove indispensable when trying to leverage a property's appeal to out-of-town visitors.
- 3. Area ADRs:** The strength of the ADRs of area hotels surrounding the potential location is a key factor in estimating potential revenue for a waterpark resort. Properties in the Poconos are achieving the highest ADRs of waterpark resorts in the United States while Midwestern locations tend to achieve lower ADRs. All parts of the country have seen strong growth in 2021 and 2022 due to the increased demand for the combination of business and leisure ("bleisure") long weekends and family time.
- 4. Waterpark Size:** Though not all markets are suited for larger destination waterparks, there is no doubt that larger properties with more attractions and features attract more visitors than their smaller counterparts. Customers are willing to travel greater distances to go to a larger destination property, resulting in a larger population base from which to draw.
- 5. Competent Management:** There is no substitute for a competent and highly qualified management company to operate the property. Waterparks require a unique set of skills in marketing, revenue management, and day-to-day operations to run an efficient operation that meets customer expectations while remaining profitable.
- 6. Focus of Property:** There are two types of waterpark resorts: those that focus exclusively on families and those where the waterpark is an additional amenity among many. For example, Great Wolf Lodge properties are very focused on families, in particular with younger children, and attract no business/commercial demand and limited group demand. In contrast, Kalahari Resorts (four locations) and Gaylord Hotels (four locations with waterparks), attract strong

group and convention demand in addition to strong leisure demand. Most waterpark resorts attract little commercial demand.

7. **Financing:** Finding financing is one of the most challenging aspects of waterpark resort development. Savvy investors will require a solid plan with financial projections that show the potential for sustained performance. Competent developers begin the project with a well-written feasibility study that will analyze the market and help determine if the waterpark resort will be successful in a particular location.
8. **Branding vs. Independent:** More waterpark resorts are independent but rely on strong theming to make their properties unique and marketable. Others, like Great Wolf Lodge or Holiday Inn hotels with waterparks, are branded or franchised properties. Great Wolf Lodge offers brand standards and theming across its portfolio, which means that guests know what to expect at any property. This kind of consistency increases brand loyalty and customer satisfaction. However, independent properties can also create loyalty and “branding” by maintaining consistent standards and offering guests a unique, highly themed experience like what is offered at Camelback Resort in Tannersville, Pennsylvania, or Wilderness Resort in Wisconsin Dells, Wisconsin.
9. **Theming:** Successful waterpark resort properties generally have unique and immersive theming. As the industry becomes more diverse in terms of offerings, and consumers demand more immersive attractions, properties need to project a strong theme that resonates with guests, tells a story, and provides additional marketing opportunities. Waterpark resorts with strong theming include Splash Lagoon in Erie, Pennsylvania; Kartrite Resort in Monticello, New York; and Kalahari Resorts in Ohio, Pennsylvania, Texas, and Wisconsin.

Mitigating failures

While the industry has many successful ventures to its credit, it's important to remember that not all properties have achieved financial success over the years. The following highlights some recent closures of waterpark resorts:

- The 11,000-square-foot Wasserbahn Waterpark Resort in Williamsburg, Iowa, permanently closed in 2022 after years of operational challenges. Since its opening in 2004, the property changed ownership and branding multiple times.
- The 340-room Caribbean Cove Waterpark Resort in Indianapolis, Indiana, closed in 2017. The property was originally a Holiday Inn that added a 35,000-square-foot indoor waterpark, but subsequently changed franchise affiliations to other brands. Drury Inns purchased the property for \$4.7 million in January 2018 and demolished the buildings to develop a new hotel.

- In Newark, Ohio, the 200-room Cherry Valley Lodge and 26,000-square-foot CoCo Key Water Resort sold after a long period of poor performance. In response to low attendance, the waterpark closed in November 2017.
- The 26,000-square-foot CoCo Key Water Resort in Waterbury, Connecticut, closed in 2016 after eight years of operation. The 282-room property sold at auction for \$5.2 million, and the buyers demolished the structure with plans to redevelop the site.

These failures highlight the importance of proper management, sizing of waterpark, area for expansion, continued programs of innovation and improvement, and a long-term strategy for success. Prior to development, a feasibility study can assist in looking at these long-term issues to help ensure success assuming the client reviews and implements the recommendations of the feasibility study.

Looking to the future

The pandemic forced the industry to adapt, but its fundamentals remain strong. We expect to see continued growth in indoor and outdoor waterparks at hotels and resorts. Owners, operators, and developers can take the lessons learned and challenges faced into the recovery with renewed hope and perspective for the future. The challenges facing developers lie in pursuing projects with strong fundamentals and a reasonable chance of financing. As waterpark resorts become more popular in many markets, those fundamentals will become even more important, with only the well-considered and expertly evaluated projects being seen as viable by investors and stakeholders. • • •



David J. Sangree, MAI, CPA, ISHC, is President of Hotel & Leisure Advisors (H&LA), an international hospitality consulting firm specializing in appraisals, feasibility studies, impact analyses, economic impact studies, and litigation support for the lodging, waterpark, and leisure industries. Sangree is an internationally recognized expert on waterpark resorts and has completed more than 700 studies of indoor and outdoor waterparks. He

was named one of Aquatics International Magazine's "2019 Power People" and received the Executive Board Award from the World Waterpark Association in 2016. He has appeared on Good Morning America and CNBC and has written articles for numerous publications. He will be speaking at the World Waterpark Association conference in Las Vegas, Nevada, in October 2022 as part of the Development and Expansion Workshop. He will also be speaking at the IAAPA Expo in Orlando, Florida, on a panel on waterpark resorts in November 2022. He can be reached at +1 (216) 810-5800 or dsangree@hladvisors.com. The author wishes to acknowledge Michael Weber and Heidi Banak for their assistance with the article. Visit the company website for a list of waterpark opening and expansions to purchase.



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Photo courtesy Digital Projection

Digital Projection, digital pioneer

Chuck Collins unpacks the company's game-changing magic for attractions

interview by Joe Kleiman

Founded in 1989, Digital Projection, headquartered in the Atlanta suburb of Kennesaw, was one of the first licensees of Texas Instruments' Digital Light Processing (DLP) technology. In 1997, DP became the first company to offer a 3-chip DLP projector, ideally situated for venues in need of high performance and brightness. Today, the company offers a robust lineup to suit a variety of price and project needs, ranging from 1 DLP to 3 DLP chips and up to 8K resolution, along with RGB laser projectors and LED video wall tiles. DP's products can be found at museums, theme parks, attractions, and projection mapping projects worldwide. InPark Magazine's Joe Kleiman asked Chuck Collins, Digital Projection's Vice President of Sales five questions about the company.

What are some recent attraction and museum projects that have utilized Digital Projection products?

As part of a very large renovation project, Digital Projection is in the midst of installing several significant Radiance Fine Pitch LED walls at the Smithsonian National Air and Space Museum in Washington, D.C. In addition, national entertainment venues such as Topgolf use our LED walls, as do smaller, regional fine arts museums and even some Esports venues.

What qualities make DP projectors well suited for immersive installations such as domes, flying theaters, and projection mapping?

Digital Projection provides projectors for just about any budget and our projectors are suitable for nearly every application. Our line of projectors starts at \$6,000 for 6,000 lumens and migrate to full 8K projection and 40,000 lumens. Our new and very unique Satellite Modular Laser System (S-MLS) provides reliable



Chuck Collins (VP Sales) and Mark Wadsworth (VP Global Marketing) of Digital Projection International flank the Satellite Modular Laser System model at InfoComm 2022 in Las Vegas.

DLP based projectors to meet any planetarium need. For a high-end, fulldome system, our INSIGHT series can deliver an 8K dome by using just two of our 8K projectors with dome lenses – imagine the simplicity and ease of operation of fulldome 8K with only two projectors. A 4K dome system can be realized with just one 8K projector outputting 4320 x 4320 through a single dome lens with no edge blends or multi-channel worries.

Why is the Satellite Modular Laser System (S-MLS) considered a game changer?

For years, conventional projectors have been getting brighter and brighter, but at the same time they have been growing larger and louder. Digital Projection took a step back and completely reinvented the projector as we have known it. We have separated the imaging portion of the projector from the illumination system by making them modular. Now, a 4RU 10,000 lumen RGB Laser Module can live in a rack that can be up to 100 meters away from a projection head! The light module is connected to the projector head via a fiberoptic cable. And the projection head is incredibly small and nearly whisper-quiet, so the viewer may never notice it. We offer S-MLS solutions from 10,000 lumens to 40,000 lumens and from WUXGA to 8K resolution! The

revolutionary design has incredible ramifications for nearly every application. One can create edge-blended images in areas that in the past were too small. Environmental enclosures can be a fraction of the size of those for conventional projectors. While “game-changing” is an often-used cliché, we believe the industry will find that it really is an appropriate description of the Satellite Modular Laser System.

You’ve been with DP for 25 years, and served in the digital projection space for even longer. What are some of the most significant advances you’ve seen over your career?

For me, my work-related life really changed with the advent of DLP technology, which I am proud to say Digital Projection was heavily involved in creating. With DLP, convergence issues became a thing of the past. Then there was the series of advances in native resolution. We went from 800 x 600 pixels to full 8K resolution! Laser phosphor illumination eliminated all the lamp issues that had been prevalent in high performance projectors. 3D was fun in the beginning – but with our INSIGHT 360 HFR, which displays 3 different 3D perspectives of the same content at the same time – 3D became important both for its collaborative uses and its entertainment value. Finally, our new Satellite Modular Laser System is the most significant advancement because it incorporates all of the previous advancements into one exciting new product family.

What else would you like your industry community in attractions and museums to know about the company and its products?

Digital Projection is uniquely positioned to be an important partner in the attractions and museum markets. Because, when projectors are not the right display solution, we have a very comprehensive offering of both fine pitch indoor LED as well as robust outdoor LED. Finally all of our products are backed by a team of passionate engineers and installers that care deeply about our customer’s success with our products. • • •



Flying theater attraction uses Digital Projection laser projectors at Hengdian World Studios in Zhejiang, China.
Photo courtesy Digital Projection



David Hoover stands in front of the Hersheypark sign with Filta company vans.
Photo courtesy of Filta

It's a dirty job...and Filta wants to do it

Helping commercial kitchens fry faster, greener, safer and cleaner

by Wendy Grant

Corn dogs. Churros. And French fries, of course! Fried food is a delicious part of a visit to any theme park. Cooking all that food requires oil and fryers. The used oil has to be removed and the fryers have to be cleaned – over and over again.

Enter Filta Environmental Kitchen Solutions. Filta is happy to take on the dirty job of cleaning your fryer. While they're at it, they can also help food and beverage operations save money and reduce their environmental impact while serving tastier chicken tenders and more delicious doughnuts. "Our mission is to make commercial kitchens faster, greener, safer, and cleaner," says Tom Dunn, CEO of The Filta Group, Inc.

Amusement and theme parks across the US currently using Filta's services include LEGOLAND, Trader's Village in Houston, Wild Waves Theme and Waterpark in Seattle, Louisville's Kentucky Kingdom & Hurricane Bay, several Fun Spot locations in Florida, and numerous other parks. Filta's customers also include restaurants and commercial kitchens in stadiums, hotels, casinos, hospitals, and more, in North America, Australia, the U.K., and throughout Europe.

Extending the life of oil

Filta provides a proprietary method of micro-filtering cooking oil that extends its life. That means the oil can be used longer, to cook more funnel cakes and fried chicken, and the food tastes

better. It also means that Filta staff clean and maintain the fryers, which spares park employees from that time-consuming and potentially dangerous job. When the oil can no longer be filtered, Filta can give it a new life by responsibly removing it directly from the fryer and then having it recycled it into biodiesel.

“We know that themed entertainment destinations are looking to be more sustainable and to save on costs by extending the life of their resources. We’re able to remove the vast amount of impurities by filtering cooking oil, so oil that potentially would have been thrown out can be used again,” Dunn says. “It extends the life of the oil and it’s perfectly healthy and safe to use. When our customers can reuse their oil, they don’t have to buy more, which saves them money. And while we micro-filter the oil, we also do a vacuum-based deep-cleaning of the fryers.”

Michelle Phy, Revenue Manager at Alabama Adventure & Splash Adventure, says, “Filta has been cleaning our fryers for over two years. It has been wonderful to not worry about cleaning them. Filta comes in, gets the job done and leaves the restaurants cleaner than when they started.”

Dunn notes that through the FiltaFry service, “Our goal is to extend the oil’s life by up to 50%.” Whether or not that goal can be reached depends on factors such as what’s cooked in the oil and how heavily the fryer is used. Because each location’s usage and needs differ, Filta provides a free site evaluation and a customized program for each prospective customer, whether they’re frying onion rings or Oreos.

Filta saves Hersheypark time and money

David Hoover, a Filta franchise owner in Harrisburg, Pennsylvania, began working with Hershey Entertainment and Resorts by servicing the GIANT Center hockey arena in 2018. A year later, he added Hersheypark to his client roster. “We started small, with just one concession stand,” explains Hoover. “That went well, so the next summer, we serviced 16 fryers in three stands – the biggest and messiest ones!”

Meanwhile, Hersheypark’s maintenance department had been tasked with fixing fryers and cleaning up oil spills. They did an audit of the park’s fryers and then recommended to the food and beverage department that Filta take over all of the fryers. Now Hoover services 91 fryers throughout Hersheypark.

Olivia Haist, Concessions Manager for Hersheypark, says that the park is able to maintain oil quality for longer periods of time thanks to Filta’s services. She says they see great savings of time and money. “Having trained professionals handle one of the most complex and impactful cleaning tasks in our kitchens gives our team members more time to focus on the cleanliness of other aspects of the operation, as well as more time to prepare for the next day,” Haist shares.

Starting with safety

When Filta’s trained technicians safely clean and remove oil, that helps keep food service and maintenance employees safe from

oil-related burns and slips. In fact, Filta was started in the U.K. after co-founder Jason Sayers’ friend was severely burned in a cooking oil accident. Sayers knew there had to be a better way to handle cooking oil, so he set out to make commercial kitchens safer. He and his partner, Victor Clewes, created the fryer management service industry in 1996 and then developed it as a franchise model expanding to the U.S. in 2002. Today Filta has more than 450 service vehicles on the road in the United States alone.



Tom Dunn, CEO,
The Filta Group, Inc.

Restaurants serving everything from eggrolls to mozzarella sticks were quick to take advantage of Filta’s services. The client base grew to include zoos and waterparks. More recently, theme parks and amusement parks like Lagoon Park in Farmington, Utah, have seen the benefits of Filta’s services.

Aaron Small, Lagoon Park’s Food Division Manager says, “I really like the service because we no longer have oil spills and we serve a better quality product.”

Going green

Another benefit Filta offers is annual sustainability reporting. Haist says she enjoys “seeing the environmental impact that comes with working with Filta by reducing our usage of oil.” She notes, “At the end of each year we get to see how our partnership has had a positive impact on efforts like reducing greenhouse gasses and savings in packaging.” For example, in calendar year 2021 simply by using FiltaFry, Hersheypark was able to save 55,293 pounds of oil, which has been estimated to have the carbon offset equivalent of planting 1,770 trees.

Hersheypark also uses Filta’s biodiesel recycling service, FiltaBio. While FiltaFry can extend the life of oil, at some point it can no longer be used for cooking. Filta provides an alternative to the practice of storing that old oil in waste drums. Instead, Filta collects the used oil directly from the fryers so that kitchens no longer need to store it. Filta brings the oil to specialized biodiesel manufacturing companies that then purify it and reprocess it into biodiesel, an environmentally friendly alternative to petroleum diesel. In 2021, Filta collected 8,545 gallons of oil from Hersheypark. Turning all that used cooking oil into biodiesel yields a carbon offset reportedly equivalent to planting 8,695 trees.

In 2020, Filta’s FiltaFry services helped their U.S. customers keep frying chicken wings, chimichangas, and cheese curds while saving 2.5 million gallons of cooking oil. Filta’s annual Environmental Impact Report (EIR) calculated that producing



Filta's process of micro-filtering can add significant life to cooking oil, improving it from a viscous, cloudy solution to something more resembling the clarity of apple juice.

that amount of cooking oil would normally emit over 5,000 metric tons of carbon dioxide (CO₂). Filta's FiltaBio service collected 2.3 million gallons of waste oil in 2020 and converted it into biodiesel, generating a CO₂ offset reportedly equivalent to planting more than 1.1 million trees. For destinations looking to reach a zero-waste goal, recycling used cooking oil is a big step toward that goal.

Expanded services for kitchens

While FiltaFry is their signature service, Filta continues to expand its offerings to meet their clients' needs in the kitchen, from deep fryers to walk-in coolers to drains.

- **FiltaGold** is a service that delivers fresh oil directly to customers' fryers, saving them storage space while providing a full-service solution.
- **FiltaDrain** is a probiotic solution that consumes fats, oils, grease and sugars to improve drain performance.
- **FiltaCool** provides and maintains special panels that help control the moisture levels of refrigeration units and walk-in coolers by absorbing excess humidity and gas molecules. This helps perishable items stay fresher, smell better, and last longer.

Dunn is looking forward to a new product and a new service that will soon be added to Filta's menu of services. He shares, "We are developing FiltaSteam to provide commercial kitchen cleaning services, which we'll offer on a quarterly, semiannual, or annual basis." He also hopes to introduce The FiltaFOG Cyclone in 2023, a grease recovery unit that functions as an environmentally friendly, energy-saving alternative to the in-ground grease trap.

Site evaluation and customer support

Filta participates in the annual Amusement & Theme Park Food Service Conference. This invitation-only conference organized in Sandusky, Ohio, by Cedar Fair and taking place in September this year is a valuable opportunity for F&B professionals to engage in dialogue. "We love to say hello to current customers and talk



Filta technicians service kitchens, micro-filtering cooking oil and vacuum-cleaning fryer units of all sizes and providing cost-effective grease management.

to future customers there," says Dunn. "But we can be reached anytime on social media, or at (866) 51-FILTA or on our website, GoFilta.com." The website's live chat resource is staffed 24 hours a day.

Dunn encourages potential customers to request a free site evaluation. He says, "If we can't help you, we'll tell you that. If we can, we'll tell you how."

Hoover agrees. "We're here for our customers," he says. "And our customers are great."

"Having worked with Filta for the last four years, there hasn't been a moment where we have questioned our commitment to partnering with them," says Haist. "There is great consistency in the quality of service they provide and they are always a pleasure to work with."

"Hiring is tough right now and park staff is best used elsewhere," Dunn points out. "Food and beverage managers can outsource the fryers to us and concentrate on what they're best at: guest service and guest satisfaction." And keeping the deep-fried deliciousness coming. • • •



Wendy M. Grant has worked in marketing for more than 25 years. She served as Director of Marketing and Communications for San Diego's Fleet Science Center, home to the world's first IMAX Dome Theater, where she directed marketing for all exhibitions, films, shows and events for 13 years. She served on the Marketing Committee for the Giant Screen Cinema Association and she was a board member for the Giant Dome Theater Consortium. Prior to working in the museum field, she was Director of Marketing at Marine Corps Air Station Miramar where she helped to produce the annual Miramar Air Show. Since 2019, Grant has worked as a communications consultant, writer and editor, with clients in the education and entertainment fields.

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